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Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, JANUARY, 1916 - DEC. 1916 No. 1-12

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(1916)

A CANADIAN BANKER IN WINTER RIG

(Photo Wallace)

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THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of the Naval Service
Fisheries Branch

LOBSTER FISHERY FISHING SEASONS
IN FORCE ON DECEMBER 1st, 1913

Number of District	LIMITS	Fishing Season	Size
1	St. John and Charlotte Counties, N.B.	Nov. 15 to June 15	4¾" carapace
2	Albert County, N.B. and Kings and Annapolis Counties, N.S.	Jan. 15 to June 29	No size limit.
3	Digby County	Jan. 6 to June 15	No size limit.
4	Yarmouth, Shelburne, Queens, Lunenburg, and that portion of Halifax County West of a line running S.S.E. from St. George's Island, Halifax Harbour, and coinciding with Fairway buoys	Dec. 15 to May 30	No size limit.
5	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys, eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite	April 1 to June 30	No size limit.
6	From Red Point, between Martin Point and Point Michaud, along the eastern coast on Cape Breton Island, around Cape North as far as Cape St. Lawrence; also the north shore of the Gulf of St. Lawrence from and including Blanc Sablon, westwardly to the head of tide, embracing the shores of the adjacent islands, including Anticosti Island	May 1st to July 31	No size limit.
7	The Magdalen Islands, including Bird Rocks and Bryon Island	May 1st to July 20	No siee limit.
8	Waters of Northumberland Strait, between a line on the N. W. drawn from Chockfish River, N.B., to West Pt., P.E.I., and a line on the S.E. drawn from Indian Point, near Cape Tormentine, N.B., to Cape Traverse, P.E.I.	May 25 to Aug. 10	No size limit.
9	The waters around P. E. Island except those specified in No. 8	April 26 to July 10	No size limit.
10	From, but not including, Cape St. Lawrence, Cape Breton Islands, south-westwardly to Flat Point, Inverness County, and from the Lighthouse in Antigonish County opposite Flat Point, westwardly along the strait of Northumberland and coast of Nova Scotia to Indian Point, near Cape Tormentine, N.B., and northwardly from Chockfish River, N.B., embracing the coast and waters of a portion of Kent County and of Northumberland, Gloucester, Restigouche Counties, N.B., and the coast and waters thereof of the Counties of Quebec, south of the St. Lawrence River	April 20 to July 10	No size limit.

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of The Naval Service is required.

Canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED
TO THE COMMERCIAL FISHERIES
OF CANADA AND NEWFOUNDLAND
THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE
- OF FISH PRODUCTS -

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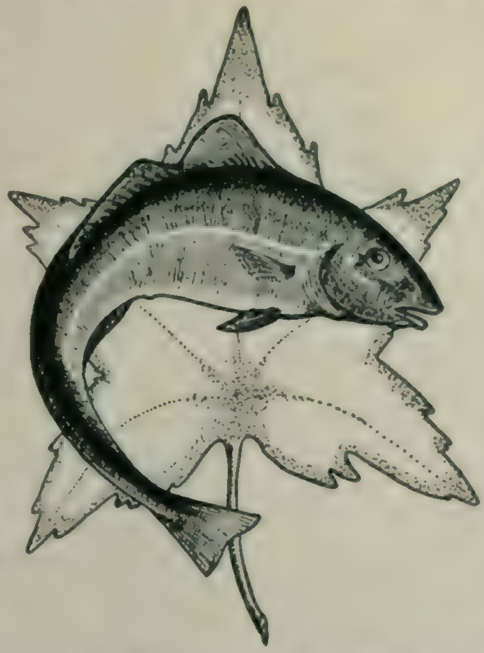

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ADVERTISING RATES ON APPLICATION

Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. III. **MONTREAL, JANUARY, 1916** **No. 1**

¶ THE EDITOR AND PUBLISHERS OF THE "CANADIAN FISHERMAN" WISH THEIR FRIENDS IN THE FISHING INDUSTRY ALL THEY DESIRE FOR THE YEAR 1916 AND "A PLACE IN THE SUN" OF GOOD FORTUNE THROUGHOUT THE COMING YEAR

Canadian Fish in Great Britain

The sample shipment of Canadian fresh frozen and cured fish collected by the Canadian Fisheries Association and forwarded to England by the Naval Service Department has been exhibited to the dealers there and, unofficially, we learn that the goods were well received and eventually disposed of at a fair price.

Enquiries from British fish dealers have already come, as a result of the sample shipment, to Canadian producers, and there is no doubt but that business will result. The whole scheme has been a success and the Canadian Fisheries Association has justified its existence by its efforts in this matter alone.

Mr. Thomas Robinson of Grimsby, Eng., was selected by the British Board of Agriculture and Fisheries to display the shipment to the best advantage and we may consider ourselves fortunate in having this gentleman handle the matter. Mr. Robinson is well acquainted with the Canadian fish business having been over here several times and investigated the industry on both Pacific and Atlantic coasts.

Opportunities are open for the introduction of our fish products into Great Britain and we urge Canadian producers to get after the business. The export of Canadian fish in a frozen and salted state to England is not altogether an experiment as great quantities of Pacific halibut and salmon have been going across for a long time past and find a ready market. Atlantic salt fish is now going over in increasing quantities, and the sample shipment shows that a market awaits frozen fresh and smoked fish of all kinds. Get after the business and do it Now!

The Canadian Fisheries of 1914-15

The Annual Report of the Marine and Fisheries Department with regard to Canada's Fisheries has just been issued. In spite of the War and the loss of several markets, the Fisheries show a decrease of only $1,943,117 which is largely accounted for by the "lean year" of the Fraser River salmon pack—the year 1913 being the big four year run of salmon. Other causes for the deficiency were the lowered value of lobsters owing to the war, which, combined with the poor catch and prices for mackerel, resulted in a decrease to the Atlantic fisheries of $500,000.

The total value of the Fisheries amounted to $31,264,631, of which total the Inland Fisheries of the Lakes and rivers aggregate $4,066,374—an increase of $332,437, accounted for by the large increase in the pickerel catch, which exceeded the year previous by $208,224. Whitefish, pike, tullibee and perch all showed substantial increases over the past year, but trout fell off by $59,115.

The salt water fisheries showed a healthy increase in the catch of Atlantic cod amounting to $499,025 over 1913. The Lunenburg salt banking fleet reported a banner year this season and we presume that the next statistics will show a still greater increase for 1915. Sardines also show a phenomenal increase which is accounted for by a good catch along the Bay of Fundy ports and the rise in values owing to the War. The total increase in the sardine fishery amounted to $672,947 over the year previous. Haddock also comes to the fore with an increase of $403,329, but halibut shows a decrease of $243,117—the catch being smaller upon both the Pacific and the Atlantic.

The attached table shows the value of fish marketed and the increases and decreases in each species for the season 1914-15.

Kind of Fish.	Value.	Increase.	Decrease.
Salmon	$8,560,000	......	$2,273,327
Lobsters	4,339,929	......	370,133
Cod	3,886,134	499,025	....
Herring	2,735,257	......	437,872
Halibut	1,793,283	......	243,117
Sardines	1,349,615	672,947	....
Haddock	1,244,840	493,329	....
Whitefish	975,685	45,723	....
Smelts	837,682	27,290	....
Mackerel	826,846	....	453,473
Pickerel	657,783	208,244	....
Trout	623,504	....	59,115
Pike	469,919	97,051	....
Hake and Cusk	313,921	....	177,058
Clams and Quahaugs	282,876	....	85,449
Pollock	214,195	26,472	....
Oysters	177,979	4,226	....
Tullibee	156,529	92,619	....
Perch	115,220	42,235	....
Alewives	106,906	21,461	....

There were 1,892 vessels, tugs and carrying smacks and 29,842 boats manned by 69,954 men engaged in the Fisheries during 1914-15 — a slight decrease from the previous year which may be due to the War and the fact of less men fitting out for lobstering and salmon fishing. The gasolene boat is fast coming to the fore in the industry, and no fewer than 9,302 of such craft were engaged — an advance of 602 more than the former year, which shows that our fishermen are rapidly becoming modernized.

The catch by Provinces is indicated below and it will be noted that British Columbia still holds the premier place though suffering a large decrease in production. All maintain their former positions in order of value though it will be noted that the Prairie Province of Manitoba has made a big jump.

Province	Value Produced	Increase	Decrease
British Columbia	$11,515,086	....	$2,376,312
Nova Scotia	7,730,191	....	567,435
New Brunswick	4,940,083	$631,376	....
Ontario	2,755,291	80,606	....
Quebec	1,924,430	74,003	....
Prince Edward Island	1,261,266	....	18,781
Manitoba	849,266	243,150	....
Saskatchewan	132,017	....	16,585
Alberta	86,720	5,401	....
Yukon	69,725	1,460	....

Taking into consideration the times we are living in, the uncertainty of markets, tightness of money for development work, etc., the Fisheries Report is most encouraging and in spite of the decrease in the total, this cannot be construed as being a real falling off. An examination of the figures imbue the reviewer with a spirit of optimism, and we cannot help but feel that our Fisheries are in a most flourishing condition — the War notwithstanding. With faith in our fishery resources, let us look to the future where our development and greatness really lies.

MARINE AND FISHERIES OR NAVAL SERVICE?

What's in a name? A whole lot!—we might answer. The youngster who during a wild burst of parental patriotism, has been christened "'Joffre," "Langemarck" or "Kitchener" Something-or-other will live to curse his parents. No person with a cheap freak name ever amounted to anything—at least we can't imagine a Mr. Ypres Joffre Jellicoe Smith as Premier of Canada or Prime Minister of Great Britain.

We in the fishing industry are much worried by a name. The Government Department which rules our destinies used to be known as the Department of Marine and Fisheries. When the Dominion acquired a Navy the Department was re-named Department of the Naval Service and the Fisheries were administered under it. Now it seems to be both. One time a report is issued under the auspices of the Marine and Fisheries Department and again another will be issued under the authority of the Naval Service Department. Mr. Hazen is called Minister of the Naval Service sometimes and Minister of Marine and Fisheries another.

Without beating about the bush, we wish to say that the administration of our Fisheries under the name "Department of Naval Service" is a misnomer and an insult to the industry. The fisheries have nothing whatever to do with the Navy or Navy Service and they are of sufficient importance to justify a department devoted to their administration. Department of Marine and Fisheries is the only satisfactory cognomen and why the change was made beats us. For numerous reasons it is desirable that we have the old name back again. Let's have it.

CANADIAN FISH FOR CANADIAN SOLDIERS.

The Militia Department of Canada intend to supply the men of the Canadian Expeditionary Forces in England and France with Canadian fish and matters for supply and distribution are being arranged forthwith. Credit for the move must be given to Director Hugh A. Green of the Canadian Fisheries Association and the efforts of the Association itself—both of which have been waiting on the powers at Ottawa in the interests of Canadian fish as part of the soldier's ration. Mr. Green has been appointed as a Major in the Canadian Army Service Corps and will shortly proceed to England to look after the distribution of the fish among the various Canadian units and Captain J. J. Cowie of the Marine and Fisheries Department, Ottawa, will supervise the sources of supply and arrange transportation.

The departure is a very important one to the Fishing Industry of this country and we congratulate Sir Sam Hughes for his consideration of the Canadian fisheries in the food supply of the troops. The scheme will not only benefit Canadian producers, but it will also prove a good advertisement for our fish in Great Britain and will undoubtedly bring business outside of the Canadian Army.

The Saskatoon Saturday Press writes as follows on the subject of Major Green's enterprise:—

"Some time ago we wrote in these columns an account of how Hughie Green, a Saskatoon fish merchant, went through the circumlocution office at Ottawa, and cut miles of red tape entanglements in front of the Militia Department under a withering fire from the enemy, in an effort to have fish put on the menu of the troops. After many trials and tribulations, he was partially successful. All summer long he has been dispensing fish at Sewell Camp, putting sinew into the soldiers and teaching them how to avoid the bones. Now success has crowned his efforts in a truly magnificent manner. Hughie Green has stormed the very last barrier, where General Hughes sits with seventeen telephones and seven private secretaries. He has been given a commission as Major in the Canadian Army, and will be director of fish supplies to all our troops in the field. He leaves shortly for France and England, and will see that the troops there get and eat fish if he has to push it around to them in the trenches on a barrow. The result of his efforts will be that millions of pounds of Canadian fish will be shipped to Europe while the war is on. General Hughes has in this instance, at least, shown that he knows a good thing when it is presented to him by an expert and an enthusiast.

We cannot restrain our admiration for a man who starts out with an idea, even if it is simply the idea of selling fish to the soldiers, and carries it through in the face of discouragement and opposition. If it should occur to Major Green that the German army ought to eat explosive bullets twice a week—he will have them put on the bill-of-fare within six months.

For years the Fisheries Branch of the Marine Department has been trying to convince the people of Canada that this great food staple of which we can furnish the world more than any other country, should be consumed more largely. Expensive booklets and exhibits were prepared; but it seemed impossible to make the people bite. One enthusiast, who knew what he was talking about, and had a way of talking that would charm a salt herring out of a tree, has effected more than the whole department. The fish industry of Canada owes this stubborn Scotchman a great debt of gratitude."

It will mean a great deal to the Canadian industry, as white fish will be sent from the Western Lakes, halibut and salmon from the Pacific coast and haddies and kippers from the Atlantic. Two million pounds of fish per week is the amount on which Major Green has decided the soldiers can assimilate but to handle this volume of fish it will be necessary that the British army also acquire the habit. "Leave that to me," said Major Green. "It may take a wee while but it'll come."

PISCATORIAL PARAGRAPHS.

There is a rumor around Halifax that the North Atlantic Fisheries Co., Ltd., is to be reorganized and put into operation again. It seems a pity that this splendid plant should have remained practically idle for so long and we trust that it will arise, like the Phoenix, and flourish.

The vacillating attitude of Greece has caused Newfoundland fish exporters much concern and several of their cargoes have been held up at Gibraltar. Later reports state that one cargo was allowed to proceed, and we have no doubt but what the others will. Greece is not to be blamed for wishing to remain neutral. She is a poor nation and much impoverished by war and which ever way she sides, she will have a hard time. With a long coastline and her principal towns and ports open to bombardment by naval forces, it is a pretty safe bet that she won't go against the Allies. The Newfoundland exporters don't need to worry.

Australia wants Canadian fish! We would be glad to give her all she wants if we had ships to freight it there. For some time past, Canadian packers of herrings and sardines have sent heavy cargoes to the sister Dominion—Messrs. Connors Bros., of Black's Harbor, N.B., especially. It seems a pity that we are not able to take full advantage of this trade through lack of transportation. If we only had our old-time wooden shipyards and builders still with us we could have built square-riggers or large carrying barkentines or four-mast schooners for this work. It might not be too late to do it yet. A big windjammer would would have no trouble in getting a paying freight have no trouble in getting a paying freight from here to Australia and they do not take long to

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The following paragraph is from the British Fishing News:

NOVA SCOTIA'S FISHERIES.

New Hatchery.

In connection with the fish-hatching industry of Nova Scotia, a civil engineer from the Bureau of Fisheries at Washington recently visited Gloucester, N.S., in order to make a survey for a large addition to the Hatchery Station. Ten Pound Island, which it is contemplated to use in the work of securing the spawn.

It is indeed, sad to have to disassociate Gloucester from Nova Scotia. We're afraid our worthy contemporary must go to the foot of the Geography class.

The B. C. fish people are aroused over a report that American and Alaskan salmon are being supplied to the British Army. What's the matter with B.C. salmon? Some time ago we wrote at length on this matter in this magazine and the Canadian Fisheries Association took the question up with the Department at Ottawa. In reply, the Minister stated that he had called the attention of the British authorities to the neglect of home products. We shall be glad to hear if anything has been done to favor B. C. salmon and will be willing to prosecute the affair still further.

BUSINESS OPPORTUNITIES.

The International Commerce Company of 82 Wall street, New York, wishes to get in touch with producers of Canadian canned fish. Herrings in 1 lb. and ½ lb. cans and packed in cases of six dozen 1 lb., and eight dozen ½ lb. flat tins are particularly required for West Indies markets. Other fish are also required for export.

VERY FISHY.

I once knew an angler who was always bragging about his catches. In fact, it was his "sole" pleasure. He was a litttle "shrimp" of a man, with not much "mussel" to speak of. He considered himself a "dab" at fishing. I knew his yarns were all "cod", and when he began to "flounder" I pulled him off his "perch," put him in his "plaice," and told him not to "carp" at my remarks; but he swallowed the "bait", took his "hook" and I have not seen him nor had as much as a "line" from him since.

1916 JANUARY FISH DAY CALENDAR 1916

Sun.	*Mon.*	*Tues.*	*Wed.*	*Thur.*	*Fri.*	*Sat.*
-	-	-	-	-	-	1
2	3	4	5	6	$\boxed{7}$	8
9	10	11	12	13	$\boxed{14}$	15
16	17	18	19	20	$\boxed{21}$	22
23-30	24-31	25	26	27	$\boxed{28}$	29

∴ The British Fisheries for 1914 ∴

The Report of the Department of Agriculture and Fisheries has just come to hand and it opens up with the following interesting preliminary:

For five of the twelve months to which the Report refers the country was at war, and perhaps no industry of the country has been more closely affected by the war than the fishing industry. The commercial effects of the war are partially reflected in the tables of landings. Its effects upon the various branches of the industry concerned with the distribution and utilization of fish, as distinct from mere catching, cannot yet be fully measured. They are undoubtedly serious, but regarding them in the light of the services rendered by the fishing industry to the fighting forces, one can afford to comtemplate them almost with equanimity. When the history of the war is written the country will realize, as it has never realized before, the supreme value to an island maritime Power of an organized fishing industry and a daring fishing population; for among the various causes which have led to the restriction of the landings of the fish, the chief has been the demand made upon fishermen and fishing vessels for warlike services. It is not claimed that the fishermen, who have readily given their labour and in too many cases their lives, and the owners, who have given their vessels for the service of the State, have done more than their duty, but it happens that the assistance which they were able to give was of paramount importance.

The present is not the occasion for a detailed consideration of these matters. It is enough to say that the discussion of every topic relating to the fishing industry during the year 1914 must inevitably take colour from the atmosphere of war. The curtailment of fishing affects the value of the statistical tables; the statistical returns derive new features of interest from the circumstances of the time, but just because of the existence of these circumstances during approximately a half of the period under review the statistics are rendered useless for those scientific purposes, which they are mainly designed to serve and which involve comparison of the returns of normal years. The various industries allied to the fishing industry or depending on it have suffered a serious setback since the outbreak of war. The administration of the Board has been largely diverted to new issues. Many members of the Board's staff have ceased for the time being to be Civil Servants, and have joined His Majesty's Forces. Scientific work at sea except in certain inshore waters is wholly suspended. In this connection, however, it is of interest to remark that the summer hydrographical cruise in the North Sea, which the Board had undertaken as part of the programme of the International Council for the Exploration of the Sea was carried out to the last detail, although the period of the cruise extended a week beyond the declaration of war. It was not till the vessel returned to port that her staff and crew became aware of the event which was to defer for so long the resumption of their investigations. It is not a little remarkable that no sound or sight of warfare should have disturbed their peaceful labours in the war zone.

In all the circumstances of the case it appeared to be desirable to issue for the present only a very brief report, and to defer to a later and, as may be hoped, a happier date a full review of the history of the industry during these critical months. It may then be possible to make a full revelation of all that the fishing industry has done and suffered since August 4, 1914. This much, however, it is permissible to say now, that the fishing industry as a whole, true to its old tradition of energy and pluck, has done double service; the men and ships that were wanted for naval services have been readily available and the remainder have continued, in spite of all menaces, to keep the sea and to bring in fish. The quantity of the catch has necessarily been diminished, and its quality and character have undergone considerable changes, certain types of vessels having suffered more than others from both naval demands and from naval restrictions, and certain grounds having been closed while others have been left open, but fish have continued to be landed because the fishermen have faced the situation cheerfully and with resource. A large body of them have joined the fighting forces, and are engaged in many hazardous enterprises on minesweepers, patrol vessels and regular men-of-war. The rest have set themselves to solve the problem of how in the difficult circumstances of the moment to catch more fish. Unfortunately the courage of the fisherman and his determination to catch fish have led him occasionally to acts of disobedience to Admiralty Regulations or to neglect of warnings which are issued mainly in his own interest. There have been not a few cases in which fishing vessels have been sunk, frequently with loss of life, because the reckless daring of the fishermen has taken them into areas which they have been directed or warned to avoid because of the danger to themselves which a visit to the areas would involve. This misplaced hardihood is regrettable, but it may be regarded perhaps as an inevitable accident of a temperament which, taken as a whole, is daily showing itself to be one of the bulwarks of the national defence.

Review of the Year's Fishing.

The tables that are here set forth are arranged to show the produce of the fisheries in the year 1914 as part of a sequence of years of which this is the last. The figures as they stand merely give certain facts, showing the relation of 1914 to the previous years. They should, in common with all tables in the Report, be considered with due regard to the effect of the war on the fisheries. The natural and inevitable fluctuations that occur in the progress of a fishery are obscured by the changed conditions arising out of fishing and the diversion of boats and men to naval purposes.

The effect of the war on landings and on prices, and on the industry generally will be fully discussed in a subsequent report when a wider survey can be taken. For the present the bare facts only are placed on record.

Table A.—Quantity and Value of Fish First Landed in England and Wales, 1904-14.

Years.	Fish (exclusive of Shell Fish). Cwts.	£	Shell fish. £	Ttl. value. £
1904	11,365,000	6,490,000	290,000	6,780,000
1905	11,310,000	7,201,000	302,000	7,503,000
1906	12,195,000	7,641,000	324,000	7,965,000
1907	13,994,000	7,826,000	329,000	8,155,000
1908	13,282,000	7,748,000	294,000	8,042,000
1909	13,955,000	7,497,000	263,000	7,760,000
1910	13,118,000	7,966,000	228,000	8,194,000
1911	14,419,000	8,051,000	273,000	8,324,000
1912	14,612,000	8,884,000	327,000	9,211,000
1913	16,152,000	10,009,000	328,000	10,337,000
1914	10,125,000	7,847,000	289,000	8,136,000

Mackerel.

The fluctuations of the mackerel fishery on the three coasts of England and Wales during the period 1904 to 1914 are shown in Table E.

Table F shows the different ways in which mackerel were caught and the quantity yielded by each. 79 per cent were caught by drift-nets, but trawl-nets yielded the same quantity as in 1913, representing, however, a somewhat larger percentage of the total, viz., 10 per cent. The remaining 11 per cent were taken by seines, hand-lines or fixed nets, and by methods not distinguished.

Table C.—Quantity and Value of Herrings Landed on the East, South and West Coasts of England and Wales During the Years 1910-1914.

Year.	East Coast. Quantity. Cwts.	East Coast. Value. £	South Coast. Quantity Cwts.	South Coast. Value. £	West Coast. Quantity. Cwts.	West Coast. Value. £	England & Wales Total, Quantity. Cwts.	England & Wales Total, Value. £
1910	3,622,958	1,384,480	83,252	35,434	121,371	50,821	3,827,581	1,470,735
1911	4,724,322	1,378,791	126,508	45,252	145,156	50,022	4,995,976	1,474,065
1912	5,229,988	1,599,050	57,995	27,495	89,158	38,279	5,377,141	1,664,824
1913	6,935,413	2,172,194	102,380	38,851	275,632	114,039	7,313,425	2,325,084
1914	1,802,007	562,563	50,758	33,323	164,143	81,918	2,016,908	677,804

The quantities of herring caught by the different methods of fishing are shown in Table D below. It will be seen that the majority, viz., 88 per cent of the total, are taken by drift-nets, while trawling accounts for over 11 per cent.

Table D.—Quantity of Herrings Taken by Each Method of Fishing and Landed in 1914.

Method of Fishing.	Quantity. Cwts.
Drift Nets	1,774,112
Trawl Nets	230,057
Fixed Nets	1,408
Seine Nets	247
Not Distinguished	11,084
Total	2,016,908

Table F.—Quantity of Mackerel Taken by Each Method of Fishing, and Landed in 1914.

Method of Fishing.	Quantity. Cwts.
Drift Nets	219,630
Trawl Nets	28,313
Seine Nets	12,531
Fixed Nets	7,518
Hand Lines	5,738
Not Distinguished	3,238
Total	276,968

Imports.

The two following tables, Table K and Table L, give a short summary of the Imports of Fish into England and Wales from 1912 to 1914. They comprise chiefly cured, salted and canned fish, shell fish, herrings and some fresh fish, imported from other countries.

Table E.—Quantity and Value of Mackerel Landed on the East, South and West Coasts of England and Wales During the Eleven Years 1904-1914.

Year.	Quantity. East Coast. Cwts.	Value. East Coast. £	Quantity. South Coast. Cwts.	Value. South Coast. £	Quantity. West Coast. Cwts.	Value. West Coast. £	Quantity. England & Wales. Cwts.	Value. England & Wales. £
1904	31,954	24,565	317,326	157,173	169,289	89,214	518,569	270,952
1905	35,080	20,186	505,504	211,396	141,960	72,446	682,544	304,028
1906	39,855	25,203	179,186	95,623	62,031	45,752	281,072	166,578
1907	25,311	20,591	321,716	126,347	72,205	39,963	419,232	186,901
1908	74,108	38,380	194,874	99,822	73,932	42,494	342,914	180,696
1909	87,737	44,153	201,079	94,780	78,449	44,157	367,265	183,090
1910	81,342	45,543	240,642	99,837	86,146	44,914	408,130	190,294
1911	98,372	49,109	172,689	75,620	102,296	54,685	373,357	179,414
1912	111,381	59,056	137,155	64,322	84,720	43,629	333,256	167,007
1913	177,551	75,330	116,715	60,619	50,829	31,287	345,095	167,236
1914	89,989	45,626	129,316	62,120	57,663	33,638	276,968	141,384

Table K.—Imports of Fish, 1912-1914.

Kinds of Fish.	Quantity. 1912. Cwts.	1913. Cwts.	1914. Cwts.	Value. 1912. £	1913. £	1914. £
Herrings	1,159,679	1,236,428	953,289	323,501	336,702	270,869
Other Fresh Fish	726,121	867,505	804,245	591,860	665,299	667,982
Oysters for Food	54,329	69,780	55,710	59,300	88,486	68,770
Other Shell Fish	96,424	143,257	133,080	49,325	78,684	76,113
Cured, Salted or Canned Fish	1,085,043	1,371,999	1,626,878	2,887,767	3,712,054	4,584,321
Total	3,121,596	3,688,969	3,573,202	3,911,753	4,881,225	5,668,055

It will be observed that, while the total bulk of imports has decreased, there is a considerable increase of the quantity of cured, salted or canned fish, and a large increase of the total value of imports.

In Table L the amounts not re-exported are given. There has been no considerable change in the quantity, but the value has gone up by over a million pounds since 1913, a fact no doubt partly due to the greater proportion of canned and salted fish.

Table L.—Imported Fish Not Re-exported, 1912-1914.

Year.	Quantity. Cwts.	Value. £
1912	2,661,114	2,738,830
1913	3,140,243	3,597,926
1914	3,167,910	4,657,762

Exports.

Table M summarises the exports of British fish both in the fresh, or cured or salted state. The effects of the war, especially upon the herring trade, are very plainly visible.

Table M.—Exports of British Fish, 1912-1914.

Kinds of Fish.	Quantity. 1912. Cwts.	1913. Cwts.	1914. Cwts.	Value. 1912. £	1913. £	1914. £
Herrings	1,043,538	1,166,598	181,363	513,599	589,657	86,818
Salmon	6,109	6,753	4,902	59,383	63,137	52,836
Cod	45,137	41,272	25,960	46,667	47,227	29,110
Mackerel	11,247	14,849	10,288	13,947	16,010	12,546
Haddock	56,729	47,380	31,240	70,325	58,598	38,856
Shell Fish	53,933	32,177	22,349	68,217	62,920	35,398
Other Sorts	186,085	160,556	127,031	425,383	378,870	273,999
Total	1,402,778	1,469,585	403,133	1,197,521	1,216,419	529,563
		Cured or Salted.				
	Cwts.	Cwts.	Cwts.	£	£	£
Herrings	8,356,232	8,795,232	3,870,577	4,600,260	5,331,042	2,253,959
Pilchards	48,892	37,101	28,586	50,661	38,676	35,252
Salmon	295	373	293	1,600	2,023	1,657
Cod	411,085	441,983	418,155	509,714	601,945	606,660
Mackerel	133,797	98,370	125,182	114,984	79,367	106,158
Haddock	41,428	33,786	30,210	61,932	58,368	57,930
Other Sorts	138,678	122,341	122,003	184,827	175,628	166,674
Total	9,130,407	9,529,186	4,595,006	5,523,978	6,287,049	3,228,290

ALBERTA'S FISH NOT ESTEEMED AS IT DESERVES.

"Why is it that the people of this province don't like the Alberta fish Is it because it is cheap? Or is it because it is too easily secured? The Lesser Slave white fish and pike sell for about one-half what the Lake Superior whitefish sells for—and yet, strange to say, the people of Calgagry don't buy as much Lesser Slave fish as they do the eastern fish."

This statement, by the proprietor of the Billingsgate Fish market, of Calgary, casts some light upon certain traits of human nature. According to certain Calgary fish men, the Lesser Slave fish is as good as the article from the Great Lakes. Yet, though it is selling for 6 and 7 cents a pound, while the Superior fish sells for twice that sum, the Calgarians often pass it over for the Lake Superior fish, but seldom without first asking the difference in price.

Owing to the abundance of the fish in Lesser Slave lake, and the fact that there is keen competition, owing to the hard times, the Alberta fish is selling probably cheaper than any firstclass freshwater fish in the country. Undoubtedly it would sell in Winnipeg, or Toronto, or Chicago equally well with the Lake Superior fish. But because it is home-grown, so to say, it does not command the public respect in this province. At least that is what the fish men of Calgary say.

LABRADOR

(Written Specially for the Canadian Fisherman by P. W. BROWNE.)

Some years, so the author of “Vikings of the North” tells us, during the progress of an insurance case in the English Admiralty Court, which arose out of the stranding of a fish-carrier at Tub Harbor, on the coast of Labrador, the presiding judge asked the learned counsel: “Where is Tub Harbor?” Counsel replied: “In Labrador, your Lordship.” “And,” continued the judge, “where is Labrador?” The learned counsel replied: “In Tub Harbor.” Whether the learned judge felt wiser after this dialogue history sayeth not.

This incident is recorded to illustrate a fact, viz., that Labrador is veritable terra incognita even to learned judges. Were we to ask an attendant at some of our advanced schools a similar question to that made by the Admiralty judge, we should doubtless find that pupils in schools outside of Newfoundland know just as little—less, perhaps—of Labrador than they do of Caliphate of Bagdad.

This is not to be wondered at as school geographies treat the great peninsula with scant courtesy; and it is generally assumed both by teachers and others that Labrador is somewhere near the north pole; was discovered by Dr. Grenfell; and its special characteristics are icebergs and grieving winds.

Labrador is that immense peninsula lying to the east of the Dominion of Canada, extending from the forty-ninth to the sixty-third parallel (N. lat.), and it lies between the fifty-fifth and the seventy-fifth meridian. It has a coast-line of nearly 1,100 miles, and territorially, it is equal to the combined areas of the British Isles, France and Austria.

Historically, Labrador is one of the most interesting sections of the American continent, as it was the first land in the western hemisphere seen by Europeans. Centuries before the caravels of Columbus had set their prows toward the land of the setting sun, the Norsemen had coasted the shores of Labrador (named by them Helluland, or Slabland), and here, probably, was born Snorri, the first child of European parents to see the light on American soil.

The modern discoverer of Labrador was Gaspar Cortereal, to whose first voyage Labrador is said to owe its name. Following in Cortereal's wake the Portuguese, during the sixteenth century, prosecuted the fisheries along the coast and banks of Labrador and Newfoundland. In a map painted by Verronese on the walls of the Loggia of Raphael in the Vatican Palace, Rome (1556) the southern part of Labrador is set down as Terra di Corte Reale and the neighboring island of Newfoundland is called Terre di Baccalao baccalao being the Portuguese word for codfish. The word baccalao itself comes from the Latin bacculum, meaning a stick; and the product derived its name from the manner in which it was dried. The fish were split and hung up on a stick to dry. We have a similar illustration in the Norwegian “stockfish.” There were no flakes in the olden days; so the only method of drying a fish was to hang it in the sun.

Basques and Bretons were evidently the first fishermen who established posts along the southern section of Labrador—the section now known as the Straits of Belle Isle; and they even made voyages into “La Grande Baie”—now known as the Gulf of St. Lawrence. Jacques Cartier made a landfall at Chateau in the eastern part of the Straits, in 1534; and we still have the names given by Cartier to sections of the coast, e.g., Blanc Sablon, Bras d'Or, Isle Verte, and Forteau. Cartier was not very favorably impressed with his new discoveries, and he is said to have declared “This must be the country which God gave to Cain!” . . . .

Cartier came in touch with the Naskopi or possibly the Montagnais Indians, whom he describes as “men of immense size, wearing their hair coiled on the top of the head like a bundle of straw, on top of which was a bunch of feathers.” . . . .

When the fleur de lis waved over New France, the French carried on extensive fisheries in the Straits of Belle Isle, which were of considerable importance. There was a settlement at Brest which seems to have occupied in those days a place similar to that which St. Pierre and Miquelon occupy at the present day. Brest was a large trade centre, and remained in the occupancy of the de Courtemanche family for several generations, later coming into the possession of M. de Brouages, one of “The Council of Seven,” of Quebec, who held it until the Treaty of Paris, 1763, when Canada became an English possession. Then “The Labrador Company” obtained a monopoly of the fisheries of the coast, and Labrador was annexed to Newfoundland (in 1783.) But owing to difficulties arising out of the vested rights of this company, it was restored to the jurisdiction of Canada. In 1809 Labrador was again transferred to the jurisdiction of Newfoundland, under which it has since remained.

The Atlantic coast of Labrador is exceedingly irregular, being deeply indented by many long narrow fiords, so that the coast line exceeds many times the actual distance from Belle Isle to Cape Chidley.

These narrow fiords, more numerous and more picturesque than the fiords of Norway, are surrounded by rocky hills that rise abruptly from the water to heights ranging from 1,000 to 4,000 feet. The water of the inlets is deep, and varies from ten to one hundred fathoms. A fringe of small, rocky islets extends almost continuously along the coast, with a breadth of from five to twenty-five miles. Outside these islets, banks extend seawards for an average distance of fifteen miles. The interior is undulating, and is traversed by ridges of low, rounded hills that seldom rise more than 500 feet above the surrounding level. It is covered with numerous lakes that occupy at least one-fourth of the total area. In size, they vary from small tarns to lakes with surfaces hundreds of square miles in extent.

The interior has never been explored; and it has been visited by few. The table land is sterile, and vegetation is found only in the hollows and the deep ravines. The entire surface is covered with boulders, sometimes three and four feet deep, varying in size from one to twenty feet in diameter.

The climate of Labrador ranges from cold temperate, on the southern coasts, to Arctic, in the far north. The highlands of the interiors have only two seasons, summer and winter, and the transition from winter occurs, as a rule, during the first two weeks of June. Summer is of three months' duration; from early in October snow remains permanently, and all the small lakes are frozen over solidly. The coldest months are December, January and February. On the Atlantic coast the season is somewhat longer, but even here, it is only possible to raise the hardier vegetables.

When Europeans first came to Labrador it was inhabited by a fierce, belligerent people whom they called Skraelings. They are now known as Esquimaux. The name Esquimaux is derived from the Abenaqui term "eskimatsik"—to eat raw flesh. In the Cree dialect the word is "ashkimai," with a similar meaning. Esquimaux is the French equivalent. The Esquimaux in early days overran the whole peninsula as far south as Mingan; but they were gradually pushed back by the Naskopis and the Montagnais, and no Esquimaux are found at the present day south of Maccovick. At the present day they are found grouped around the Moravian Missions, and number about 1,200. They are still in the primitive stage, and get a living by sealing and fishing. Their catch is handled by the Moravian missionaries—an ecclesiastical commercial organization whose trade receipts average about $40,000 yearly.

Besides the Esquimaux there are two other tribes on the coast, the Montagnais and the Naskopsis, who are nomadic in habits ,and have no permanent abode. They do but little fishing, and depend upon hunting for a livelihood—a rather precarious mode of existence—and they are frequently face to face with starvation. During a recent visit to the coast the writer learned that several had died of starvation during the winter of 1914.

The greatest asset of Labrador is its seemingly inexhaustible cod fishery. Yet one rarely hears the word codfish in Newfoundland or on the coast of Labrador; fish invariably means codfish, and every other member of the finny tribe is called by its distinctive name. The fishery has been prosecuted regularly along the coast since the early days of the 18th century. Prior to this date no regular fishery was carried by Englishmen, though the Basques and the Bretons had fishing establishments in the Straits of Belle Isle, as we have seen, long before the English visited Labrador.

A LABRADOR HARBOR.

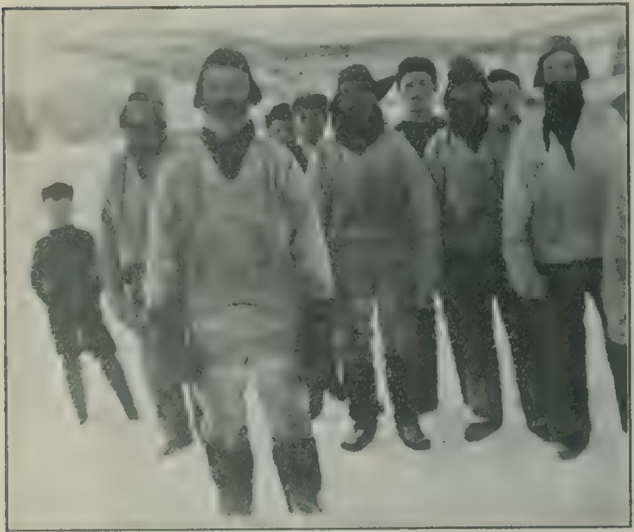
Under the regime of Governor Palliser (Governor of Newfoundland from 1764 to 1768) regulations were drawn up whereby the Labrador fishery should be conducted as a "ship fishery"; and in order to protect the vessels engaged in it, he established Fort Pitt, in Cateau Bay, placing it under the command of Lieutenant Adams, who held the position of civil and military officer. A great impetus was thus given to the fishery, and several "rooms" were established in the Straits of Belle Isle and on the upper part of the coast.

Several Jersey firms were established in the Straits shortly afterwards. DeQuettville had two establishments, one at Blanc Sablon, and another at Forteau, in 1779. Falle & Co. had a room at Admiral's Point in 1795. About the same time Boutillier Brothers carried on a large fishery at Isle aux Bois; and some time later Robin began operations at Long Point. These fishing establishments were practically settlements, and a fishing hamlet arose wherever a "concern" was located. They had a long list of clerks and helpers who were paid exceedingly small wages. West-of-

England Adventurers, Americans, and Newfoundlanders followed immediately on the trail of the Channel Islanders; and we find the firms of Darby, Cartwright and Lucas at Cape Charles in 1768, and Noble and Pinson, in Temple Bay.

Permanent stations to the northward began about 1782. Cartwright established the settlement which bears his name in Sandwich Bay, in 1788; and after a short while sold out to the Hudson Bay Company, which is still operating there.

Hun and Henly located at Long Island in 1800. Warren began operations at Indian Tickle in 1830; and a few Newfoundland planters were at Domino about the same year. Newfoundland fishermen went down to Grosse Water Bay (Hamilton Inlet) in 1832; and these venturesome toilers have been pushing their way north ever since. They now go down to Cape Chidley, even venturing into Ungava Bay. The northern section of the coast affords the most promising fishing grounds, as it is fringed with a vast multitude of islands forming an almost continuous archipelago from Ailik to Cape Mugford, and extends seawards nearly thirty miles. Outside this archipelago and about fifteen miles seaward are numerous banks and shoals which form the summer feeding grounds of the large cod; and a second range of banks, outside the shoals, which are probably their winter feeding places.



LABRADOR FISHERMEN.

This island-studded area is immense; and it is estimated at 7,000 square miles. The Arctic current which leaves these shores exerts a most beneficial influence on the fish life of these regions. The icy current flowing from the Arctic seas is in many places a living mass, a vast ocean of infusoria which accompany the icebergs and floes, accumulate on the banks of northern Labrador, and render possible the existence of all these forms of marine life—from the crustacean to the diatom, together with the molluscous animals and starfish, which contribute to the sustenance of the great schools of cod which find their homes there.

The Labrador fishery in former times—in the 70's of the last century—employed about 25,000 people. To-day it employs hardly half that number. There were then fully 1,500 vessels, brigs, topsail-schooners, "beaver hats" and fore-and-afters engaged in the fishery, which was much more productive, as regards the catch, than it is to-day. The fishery has declined rapidly; but the price has increased. The writer remembers the time when Labrador fish sold at $1.60 per quintal. During the season just ended Labrador fish touched the highest price in the history of the fishing industry—$6.40. The shortage of the catch and abnormal conditions due to the war forced up the price.

From an old memorandum I find that in 1905 the total catch was 730,000 quintals, with a value of $2,500,000. This season's catch is considerably under 300,000 quintals—a great falling off. Some 950 vessels and large boats were engaged in the fishery, and many of them returned with very small catches. Labrador now presents a serious economic problem, and what the solution is going to be is difficult to foreshadow.

The fishery is prosecuted chiefly by men from the northern and eastern bays of Newfoundland; the southerners are almost a negligible quantity. They are divided into two classes—"Floaters" (or Green Fish catchers) and "Stationers" (sometimes called "Squatters" or "Roomers"). The former fish wherever the cod is to be found; the latter locate in some harbor, creek, or bight, where they own a "room." This may consist of a substantial dwelling house, commodious stores, substantial wharves and landings—such as one sees at Battle Harbor, Venison Tickle, Batteau and Indian Harbour; or, as is the case in the further north harbors, it may consist of an 8 x 10 bunk house, a living shanty, and a stage, ofttimes roofless and a stage-head built of longers, which must be rebuilt every season.

The Stationers are not usually the owners of schooners. They are "freighted" down to the coast in schooners belonging to the firm with which they deal. "Freighted down" seems a very peculiar term to apply to humans; but when one sees the conditions under which the human cargoes are sometimes carried to the coast, the word is perfectly apropos. Happily this method is rapidly disappearing. The women folk now get down to the coast in the Reid steamer, which makes trips fortnightly; and the more independent planters are now abandoning the old system.

The Stationers leave the home port about the first week of June, if conditions are favorable. Of late, the presence of ice on the northern part of the Newfoundland coast has delayed them till later. They return about the 15th of October (formerly they rarely returned before the end of the month). In those days, in addition to the codfishery, there was a large herring fishery on the coast. Herring disappeared from Labrador about 25 years ago. There are signs that they are returning again. The Floaters get away earlier, and most of them go to the Straits of Belle Isle, as far west as the Meccatina Islands. If they are successful they return and land their trips, and then get way "down to Chidley." Few Floaters "make" their fish on the coast; they take it to the home port and dry it as "Labrador shore." The Stationers make theirs, or rather they dry it for a couple of days, and the product is known as "soft Labrador." This, strange to say, is the quality of fish which has been in greatest demand during the present season. Even the Banking fleet shipped their last trips as "soft cure," and from one of the skippers I learned that this meant practically $9.00 for hard dried fish.

Formerly the outfit for the Labrador fishery consisted of "hook and line" and jiggers; but in more recent years cod seines and traps have supplanted those primitive appliances. There are still some "hook and liners"; but these are usually punt fishermen who have not the means to buy "twine.' Some of the latter class now use bultows, but on certain sections of the coast the use of bultows is prohibited. Some time ago an old fisherman remarked to me: "Ther's no fishermen goin' these times; them traps is a lazy way for gettin' fish; and you ken hardly find a man goin' to the fishery now that knows how to genge a hook."

I wonder what this old man would say were he to visit Labrador these days and see the flotilla of motor boats along the coast! American fishermen introduced seines on the coast; and it is said that Captain Norman, of Brigus, introduced the cod trap. Since the advent of the motor boat fewer men are needed to handle traps, and a fisherman informed me during a recent visit to the coast that a motor boat was the best investment he had ever made. "It had paid for itself three times over during the season."

With many fishermen, the fishing season ends when the trapping is over, whilst others continue with hook and line or the jigger. The great handicap after the trapping season is over is lack of bait. In certain sections there is a plentiful supply of "lance"—a shad-shaped fish about six inches long, and not much larger than a stout lead pencil. This is found at all points on the middle and south coast of Labrador, though never at any time abundantly. Herring are also used for bait wherever procurable. Within recent years herring have been scarce, and many fishermen abandon the voyage as soon as the trapping ends. This presumably accounts for the shortage in the catch of fish in recent days, as there is abundance of fish on the offer grounds which fishermen of to-day do not frequent.

The herring fishery of Labrador in the early half of the last century—even as late as 1885, was considered "the cream" of the voyage; but alas! there is no longer any cream. The disappearance of herring from the coast is one of the many peculiar things in connection with the Atlantic fisheries which should be investigated. Were the cause discovered, some means might be evolved to prevent a recurrence of this, should the herring return which, from recent indications, seems likely. During my recent visit to the coast I saw some splendid specimens of the old time variety at various points, and fishermen assured me that there was every prospect that the fishery would revive.

Notwithstanding the fact that Labrador herring were regarded as the plumpest and best in the world, they had acquired a rather unsavory reputation in Canadian markets, and sold in 1885 for less than one dollar a barrel in Montreal. On one occasion, if memory serves me right, thousands of barrels found their way to the fertilizer heap. The packages were defective, and they arrived in poor condition—"rusty as an anchor" in many cases. The pack was not what it should have been, owing to careless handling and dishonesty on the part of small packers. There was no regular inspection, and the result was that even reliable packers could not dispose of their catch.

The salmon fishery of Labrador was in former times an important asset, and was vigorously prosecuted along the coast, from Bonne Esperance to Hamilton Inlet. It was carried on at the mouths of the larger rivers, and in the inlets; but, within recent years, the salmon fishery has been a negligible quantity. The fishery is now practically confined to the Hudson Bay posts at Cartright and Rigolette, though small quantities of the "Royal fish" are taken by up-the-shore fishermen. Two species of salmon are found on the coast—the Salmo salar (Linn) which is the "true salmon," and the Salmo immuculatus (Storer) which is known as "salmon trout."

Trout fishing is an important item in the operations of the Moravian Missions, and at the Hudson Bay post in Davis Inlet. Newfoundland fishermen rarely prosecute this fishery, and in our fishery returns it is unimportant.

The shore seal fishery is also declining. In former times "hauls" of six or seven hundred were not unusual; but now the average catch rarely exceeds one-fifth of that number. This fishery is carried on (with nets) from May to June 10 (spring run), and from November to about the middle of December (fall run.) It was formerly the largest item in the settlers' fishery, and we find evidence of its importance in the names along the south and west sections of the coast; there are numerous "Seal Bights," "Seal Coves," and "Seal Rocks."

The whale fishery has been from earliest times an important industry on the Labrador coast; and the quest of the "monarch of the sea" was seemingly the lure which first attracted European adventurers to the coast. Bretons and Basques carried on this fishery before England had formerly taken possession of Newfoundland; and from 1545 to 1700 operated in La Grande Baie (the lower Gulf), and possibly in the Straits of Belle Isle. We have no records of whaling by English or American fishermen previous to 1764. From this date to the early days of the last century whalers from Newburyport and New Bedford, in Massachusetts might be seen annually on the coast. Newfoundlanders did not enter the field till 1900, and the venture proved disastrous for some investors. Only one whaling plant is in operation on the coast at present writing—the plant at Hawke's Harbor, which has just closed the most successful season in its history, the Cachalot having secured 71 fish.

The decline of the Labrador fisheries has brought about many changes on the coast, notably a decrease in the population of settlers who are known to Newfoundland fishermen as "liveyers" (doubtless a corruption of "live heres," as the natives usually drop their h's like their Devonian forebears). According to the Census of 1891, the population, exclusive of Esquimaux, was 2,709. At present writing it is less than 2,300. There has been a notable exodus from the upper and the Straits Settlements. Many families migrated to Bonne Bay and Bay of Islands when the herring fishery began to assume importance in these sections, whilst others returned to the homes of their fathers in Conception Bay. The most thickly populated centres on the coast are in the neighborhood of the Hudson Bay Posts, at Cartwright and Rigolette. Now that these posts are curtailing supplies, it is quite possible that the migrations from the coast will continue. The lot of the "liveyers" is by no means enviable. They, for the most part, live "from hand to mouth," and, with few exceptions, are a rather shiftless class. Of course there are exceptions to this; but the number of Labradorians who have risen beyond the condition of perpetual indebtedness is small. This may be accounted for by the system of business characteristic of the "Great Company." The hardships of the settler are great and their resources slim.

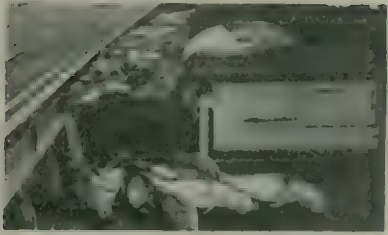
Acolus slumbers nigh to the rocky fastnesses of the coast of Labrador; and when awakened proclaims his might by wreaking awful destruction within his realms. The death-roll of the Labrador fishers is a lengthy one. The nomenclature of many of its capes, islands, and harbors, is unmistakable evidence that even the ancient mariners dreaded its rugged shores. Belle Isle was known of old as "Isola di Demoni," (the isle of demons). In the near vicinity we find "Cap Maudit" and "Isle Sacree" (suggestive of "cuss words"). Some miles to the west we find "Pointe aux Morts" (dead men's point), and "L' Anse au Diable" (Devil's creek, but called by Newfoundland fishermen "Nancy Jawble").

The coast is visited periodically by terrific gales; and nearly every harbor along its lengthy coastline has paid its toll to the death-dealing fury of the storm ushered in generally by a terrific north-easter. The "ground-swell" of the coast is a phenomenon rarely witnessed elsewhere, and Admiral Bayfield, who surveyed a large part of the coast says: "I have never seen heavier sea than that which rolls in from the eastward, in Lewis Sound, near the entrance to the Straits of Belle Isle; I never saw anything more wildly grand and beautiful than the tremendous swell which rolls in from the sea, often without wind, rolling slowly, but irresistibly, as if moved by some unseen power, rearing itself up like a wall of water, as it approaches thec raggy sides of the islands, moving faster and faster as it nears the shore, until at last it bursts with fury over the islets thirty feet high, or sends up sheets of foam and spray, sparkling in sunbeams, fifty feet up the sides of the precipice. I can compare the roar of the surf in a calm night to nothing less than the Falls of Niagara."

In the "gale of '67," one hundred lives were lost between Cape Harrison and Domino; and some years ago the remains of a schooner might be seen "far up in the woods," at Curlew, near Cape North. The schooner was driven from her moorings in a north-east gale and 29 lives were lost. At Grady, in the near vicinity, in the same storm, fearful havoc was wrought, and thirty persons were drowned at Black Island. At White Bear Islands, during this gale, there were distressful scenes, 39 fishermen were drowned, one whole family being wiped out of existence. In 1898 forty schooners were lost at King's Bay, but there was happily no loss of life. During the season just closed there were several losses.

Labrador within recent years has been extensively (and somewhat unfavorably) advertised by Dr. Grenfell; and there are many people abroad who know the coast only through the Doctor's writings. He has been connected with the coast for nearly a quarter of a century. At its inception, his work was medical, but he has ventured into other fields which have not, it seems, yielded abundant harvests. Through his efforts two hospitals have been established on the coast, one at Battle Harbor, the other at Indian Harbor. The medical end of the work is very satisfactory, and affords fishermen relief from many ills; but the other activities are not so acceptable to the fishers. The Doctor in the exuberance of his zeal has come into conflict with some of the religious bodies, whose missionaries have been doing heroic work on the coast for more than a century. His business ventures have caused him not a little difficulty, and from certain indications, have not been successful. The fact is that fishermen who frequent the coast are not particularly enthusiastic about these activities. All are agreed as to the value of the medical side; but they regard the religious and commercial phases of the work as being outside its legitimate sphere.

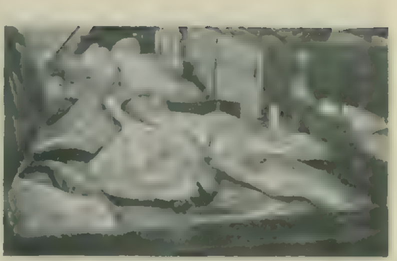
SHORE FISHING BOATS.



BILLINGSGATE

A pen picture of the Great London Fish Market of to-day.

By COLIN McKAY.



A roaring as of surf upon a rocky coast, modulated by shrill wailing cries, an immense and agitated movement of men and fish, rolling in waves about the vast building, and the business of the day is in full swing at Billingsgate the greatest and most wonderful fish market in the world. All seems confusion, a pandemonium of bizarre noises; but in the amazing bustle and hustle order dwells—all these jostling shouting men are pursuing the routine of appointed tasks. It is bewildering and inspiring, this great market which supplies a population, almost as large as that of Canada, with the products of the sea. Before the war Billingsgate handled an average of 800 tons of fish a day; now in these days of diminished supplies the market varies from 300 to 600 tons a day.

Even in the war time the market presents a busy scene in the early mornings. On the Thames side, carrier steamers, tied up to the dummy landing stage, disgorge torrents of fish; and up the gangway streams of porters move with swift precision, bearing upon their heads great boxes and baskets of fish to be dumped upon the slides at the forms of the auctioneers. They move in ordered procession in an endless chain of sinewy-looking men with hard leather hats upon their hard heads, and brine and blood and icewater dripping over the broad brims of their head-gear down upon their long white coats that hang below their knees and soon lose the neatness and cleanness of early morning.

On the other side of the market Thames street is packed with railway vans laden with fish from many ports. From street as well as river hundreds of tons of fish roll in waves into the market, there to be pitched about with disciplined haste, sorted and distributed among the market men, resorted, and prepared for delivery among the fish dealers in all parts of the great metropolis.

When the slide at the "form" is full, the auctioneer begins his day's work. His lingo is laconic and much of it might, for the uninitiated, be so much gibberish. Mostly he is jovial and good humored, but now and then he flames with sudden wrath as someone displeases him; and he rages furiously till a rude jest restores his good humor. Around the form an eager group of bummaree buyers and fish monger purchasers contend for the spoil of the sea brought to the market in the early morning.

As the lots are knocked down the busy porters sweep them into their baskets, swing basket to head, and rush away through the swarming crowds, and deliver them at the stalls of the purchaser.

All over the great building between the shop premises at each end are row on row of stalls or stands, a labyrinth of little marts, with the name-plate of the dealer hung over a desk, a weighing machine, and a washing vat, surrounded by little mounds of boxes and baskets.

Everywhere busy salesmen are opening packages icing or re-icing boxes; everywhere the long-coated porters are moving quickly to and fro, with baskets of fish or ice balanced precariously upon their heads. As the minutes pass, throngs of outside buyers pour through the aisles between the labyrinth of stalls and stands, streams of people coming and going, eddying this way and that, jostling and pushing, eagerly bent on business. They tramp about in a welter of slush, of ice water and slime, in an atmosphere, damp and and ancient, and charged with the mingled odors of sweating humanity and a hundred varieties of fish. And into them bumps with fevered activity the man with the squeegee, trying as vainly as Mrs. Partington, to keep the flagstones of the aisles dry and clean.

In the early hours of the market business goes with a rush and swing. Salesman and purchasers waste no time on talk or haggling. A dealer gives his order, pays and departs. One can buy any quantity. At the 'form,' where the auctioneers hold forth you buy fifty trunks; at the shops which line the east and west ends of the market the salesman gladly sells you a trunk of soles, or an original package of lobsters, or salmon, and with equal courtesy will sell you a single cod; at the stands ranged in rows all over the place you can buy a trunk of soles, or a pound of shrimps. All the salesman asks is that you do your business quickly and be gone. Not till after the rush is over has he time to deal with the huckster and chafferer — the over-thrifty souls who haggle the salesman out of patience for a penny.

"Billingsgate", says one writer, "swings its portals wide; the west end — this does not always represent the cream, for did not one say the further I go West the more I am convinced the wise men came from the East — with its demand for the dames and demoiselles of fashion, and the suburbanites who throng the Royal Boroughs. The near east is perhaps the antithesis to there; the men and women of far countries, the dwellers of the Ghetto, shrewed if unshorn—these purchase here those mountains of fish that one can view later on, check by jowl, with squalor which is more apparent than real, but fish that is of the best, and that will conform to the most careful goods oversight in the world — that of the Jewish Ecclesiastical authorities."

At Billingsgate some of the older firms carry on business on a commission basis, but a large number of traders buy fish outright, taking their chances on the market, or guarantee the fisherman a set price. In the old days the Billingsgate dealer always sold his fish in bulk, and many do so today, notably the fishing companies' auctioneers. But as the fisherman do not usually pack fish all the same size, and as one retail fishmonger wants fish of one size, and another of a different size, the necessity of some sort of sorting system is obvious. This necessity developed a class of traders, known as bummarees, a title of mysterious origin, though some lexicographers say it was derived from the French words **bonne marée**, meaning good fresh sea fish. Be that as it may, the bummaree performs a useful function; he buys fish in bulk, according to sizes or the special requirements of the retail trade, and takes his chances of making a profit; he is in the position of a middleman between the market salesman and retailer and forms a large proportion of the market dealers. Being a regrator, his business is in direct opposition to edicts of olden times; edicts which though not specifically repealed have not been enforced for many generations, and which were doubtless rendered null and void by the Act passed in 1846, declaring:

"And it be enacted, that from and after the passing of this Act Billingsgate Market shall be on every day of the week, except Sunday, a free and open market for the wholesale and retail sale of all sorts of fish, and that it shall and may be lawful for any person to buy or sell, both by wholesale and retail, any sort of Fish, or any quantity thereof, in the said market, without any Disturbance or Molestation whatsoever."

Billingsgate is for many people a word associated with ladies of unenviable repute. Even the Oxford Dictionary defines the word as meaning "a clamoring, foul-mouthed person, a vulgar abuser or scold." At one time women dealers were numerous in the market, and women also acted as porters, carrying creels of fish of a weight that would surprise their successors. But I saw no sales woman in the market; and only a comparatively small number of women buying fish. And none of these were women of coarse language or crude manners.

Billingsgate has been a fish market from time immemorial. Some chroniclers state that the original dock or gate was built by Blein, King of the Britons in 400 B.C., who, along with Brannus, King of the Gauls, sacked Rome in 360 B. C. Evidently Billingsgate was the old port of London; it was a resort for shipping of all sorts of fish.for centuries customs duties as well as fish tolls were paid there. In the reign of Edward I, the authorities fixed the following as maximum prices.

Best plaice 1½d. each.		Mackerel in Lent	1d.
A dozen best soles	3d.	Mackerel out of Lent	½d.
Best fresh mueril or cod	2d.	Best oysters, gallon	2d.
Best haddock	2d.	Pickled Herrings	1d.
Mullet	2d.	Porpoise	6d.—8d.
Dorai	5d.	Smelts (per hundred)	7d.
Conger	1d.	Fresh Salmon, Xmas to Easter	5s.
Turbot	6d.	Ditto, after	3s.

Compare these prices with the prices prevailing at Billingsgate recently:

Salmon (frozen)	lb.	1s. 6d.	to 2s. 10d.
Soles	do	1s. 3d.	to 2s. 2d.
Cod (live)	stone	5s.	to 8s. 6d.
Haddocks	stone	3s. 6d.	to 4s. 6d.
Hake	do	5s.	to 8s. 6d.
Dory	lb.	4d.	to 6d.
Mackerel	120	10s.	to 30s.
Herrings (fresh)	brl.	40s	to 50s.
Haddocks, Dry	doz.	3s.	to 17s.
Lobsters	score	10s.	to 50s.
Oysters	100	4s.	to 16s.

The Fishing Trades Gazette, of London, says: "Billingsgate was not always in good odour. Its very name was a synonym for bad language. Bnt that is a thing of the past and the people who do business in the great market, from the merchant prince to the porter will compare favorably, man for man, with any other subjects of the King George. The calling of the fish salesman, the first merchant and the fish-monger has he become more dignified, because a more dignified class of men are engaged in it. And those who catch the fish — was there ever a time when they were more highly esteemed than now, when so many of them are bravely risking their lives in fishing for means of destruction instead of means of substance?"

HALIBUT ARRIVALS, NOVEMBER 16 TO DECEMBER 15, INCLUSIVE.

Canadian—Prince Rupert, B.C.

Dates.	Vessel.	Delivered to.	Weight.
Nov.			
18	W. R. Lord	The Canadian Fish & Cold Storage Co., Ltd.	8,000
21	Jas. Carruthers	The Canadian Fish & Cold Storage Co., Ltd.	100,000
	Grier Starrett	The Canadian Fish & Cold Storage Co., Ltd.	10,000
	Geo. E. Foster	The Canadian Fish & Cold Storage Co., Ltd.	160,000
23	Andrew Kelly	The Canadian Fish & Cold Storage Co., Ltd.	110,000
24	Wireless	The Canadian Fish & Cold Storage Co., Ltd.	10,000
26	Flamingo	Atlin Fisheries, Ltd.	5,000
29	Emma H.	Atlin Fisheries, Ltd.	10,000
30	Chief Zibassa	The Canadian Fish & Cold Storage Co., Ltd.	25,000
Dec.			
6	Geo. E. Foster	The Canadian Fish & Cold Storage Co., Ltd.	130,000
8	W. R. Lord	The Canadian Fish & Cold Storage Co., Ltd.	6,000
9	B. B.	Atlin Fisheries, Ltd.	5,000
10	Andrew Kelly	The Canadian Fish & Cold Storage Co., Ltd.	140,000

American—Prince Rupert, B.C.

Nov.		
16	Anne J. Larsen	25,000
	Jupiter	5,000
	Nellie	8,000
17	Senator	25,000
	Puritan	80,000
	Alameda	6,000
22	Knickerbocker	75,000
26	Manhattan	130,000
27	Tom and Al.	90,000
	Eagle	10,000
29	Thelma	10,000
30	Presho	9,000
Dec.		
1	Constitution	14,000
	Alten	85,000
2	Constance	70,000
	Seymour	50,000
	Kinge and Winge	110,000
4	Atlantic	13,000
	Alvilda	9,000
	Tyee	85,000
8	Jupiter	5,000
9	Rolfe	9,000
13	San Jose	5,000
14	Sitka	75,000

(Continued on Page 17.)

∴ ∴ THE FISHERIES' FORUM ∴ ∴

LETTERS TO THE EDITOR.

THE MODUS VIVENDI.

Editor, Canadian Fisherman:

I was much interested to read your excellent editorial in the November issue on the Modus Vivendi question. The argument of the editorial was admirable and it stated the question clearly and fairly.

The admission of motor driven American fishing vessels to the full provisions of the Modus Vivendi license will revolutionize the fishing industry throughout the Maritime Provinces, possibly as much as the new regulations have transferred to Prince Rupert, the sailing fleets of Seattle.

The fishermen and fishing interests of the Province, I believe, are unanimously in favor of the change being granted with the single exception of the Maritime Fish Corporation of Digby. Petitions containing fully 2,000 names from Digby, Yarmouth, Shelburne, Queens, Lunenburg and Halifax counties have been sent to Ottawa. In addition to favorable resolutions from the Boards of Trade of Halifax, St. John and Yarmouth. It may be of interest to know that every fish firm and prominent dealer in the town of Digby willingly signed the petition, except the above named firm .

It has been urged by some that Canada should receive privileges from the United States to compensate for the change in the Modus Vivendi, which at present denies the following to Canadian fishing vessels. Privileges desired are:

1. That Canadian fishing vessels enter and clear from the ports of Boston and Gloucester direct for the fishing grounds outside of fishing limit, without having to enter and clear from a Canadian point.
2. Canadian fishing vessels holding fishing licenses be permitted to bring cargoes of fresh and salted fish from Canadian ports to Boston and Gloucester.

In reference to No. 1 would say it is the concensus of opinion on the part of the leading fish interest in the Maritime Provinces, particularly the owners of vessels, that no greater harm can be brought to the seaports and fishing interest in the Provinces than the United States to grant this privilege. The inevitable result would be the fishing vessels to save time would very infrequently call at Canadian ports, and, consequently, would purchase provisions, bait, etc., at Boston and Gloucester, thereby depriving seaport towns in hte Provinces from such business.

A case in point illustrates this. A local company has been lately formed at Yarmouth of which Mr. George out of South Shore ports, and already the power vessel "Yafico" has been put in commission. The catch from these vessels is cased and shipped to Boston fresh by the steamers of the Boston & Yarmouth SS. Co., Ltd., which is a Canadian Corporation with headquarters at Montreal, operating frequent and very satisfactory service between Yarmouth, N.S., and Boston, Mass.

Canada thus by developing her own ports is adopting a saner policy than by permitting her vessels to forsake such ports and contribute to the building up of Gloucester and Boston.

The privilege permitting motor driven American fishing vessels to land their catch at Canadian ports only applies on fresh fish which must be immediately re-shipped from ports via Yarmouth to Boston inb ond, therefore, does not in any way affect or interfere with local Canadian fishing interests.

Privilege No. 2 is really not necessary as under Canadian fishing regulations, a fishing license can easily be changed over to a trading license and under the latter Canadian vessels are permitted to bring cargoes into American ports. A case of the fishing schooner, "James A. Clark," which was denied admission at Gloucester last September with cargo of salted fish was due to the fact she arrived with a fishing license which should have been changed at Yarmouth to a trading license, and under which her cargo would have been admitted.

If the change is made in the Modus Vivendi permitting motor driven American fishing vessels all the privileges of the license, it will bring to the ports of the Maritime Provinces a life and activity of which they are much in need. It is pathetic to visit any of these great fishing ports in the Provinces and see the vacant wharves which should be lined with vessels and teeming with activity and business. Every one will benefit and no interest will be harmed.

Everyone interested in the development and building up of fishing industries in the Maritime Provinces should petition the Government at Ottawa to remove the restriction on American motor driven fishing vessels and enter protest against Prince Rupert reaping all the advantages from this simple business arrangement.

FISHERMAN.

Yarmouth, N.S., Dec. 20, 1915.

HALIBUT ARRIVALS.

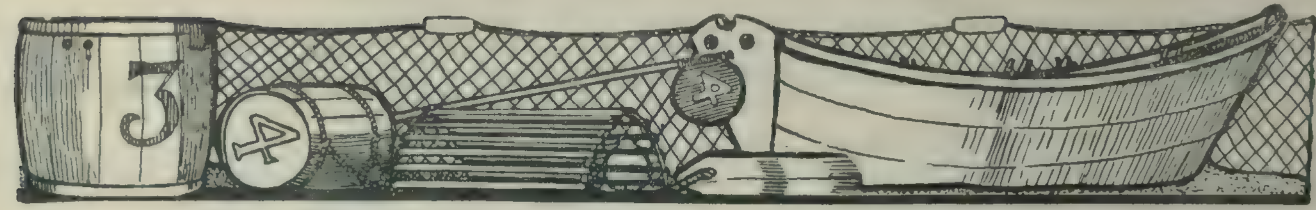
(Continued from Page 16.)

Vancouver, B.C.

Date.	Vessel.	Delivered to.	Weight.
Nov..			
19	Al-Ki	New England Fish Company	200,000
22	New England	New England Fish Co.	70,000
	Manhattan	New England Fish Co.	100,000
29	Flamingo	The Canadian Fishing Co., Limited	50,000
Dec.			
1	Pescawha	The Canadian Fishing Co., Limited	25,000
2	Celestial Empire	The Canadian Fishing Co., Ltd.	20,000
10	Elihu Thomson	New England Fish Co.	600,000
13	Manhattan	New England Fish Co.	250,000

Steveston, B.C.

Nov. 17	Onward Ho	Columbia Cold Storage Co.	130,000
Dec. 11	Onward Ho.	Columbia Cold Storage Co.	125,000



THE ATLANTIC FISHERIES

DIGBY, N.S.

(From Our Special Correspondent.)

Advance Digby! While her sons are toiling on the Atlantic and her business heads are endeavoring on shore to take full advantage of the passing opportunities, her trade expands until it extends for thousands of miles North, South, East and West. From the Atlantic to the Pacific Digby haddies have long been in active demand; dry fish from Digby is securing an enviable reputation in South America; and now large shipments of pickled fish are en route to Europe, where good business has been started and, without doubt, will be maintained. For some time past our business men have been hoping to realize their dream of a possible trade connection with the Old Country, and therefore as soon as the present propitious conditions presented themselves, they were ready to take advantage of them. A paragraph in the local press refers to this new market as follows: "There is going forward this week (Dec. 7), a shipment of 125,000 lbs. of cusk and hake for Aberdeen, Scotland; a new market for Digby pickled fish. The steamer Bear River is here to-day and takes the shipment to St. John, where the 250 cases (500 lbs. to a case) are to be put aboard one of the trans-Atlantic steamers. This new market gives promise for further orders, and the Maritime Fish Corporation are the pioneer shippers of pickled fish from Digby to the United Kingdom; in fact, this lot is a direct cash order from a big firm in Aberdeen."

A number of shipments of Finnan Haddies, during the past month, have gone from Digby to Portland, the one place Digby firms had to combat in gaining a hold on the markets of the upper Canadian provinces for this delicious variety of table fish. Not many years ago, when this industry was in its infancy here, Portland controlled the haddie markets of Upper Canada; in fact, the producers here remember the time when Portland bought green stock from them and, after curing, placed the finished product into Canada. To-day finds Digby supplying the demand, and even shipping haddies to Portland to be used for home consumption in that city; and, besides, Digby packers send large shipments of haddies to American markets from the middle states to the Pacific coast.

At this writing the producers do not know where their next supplies of green stock are coming from; in fact, there has not been anywhere near enough green stock landed to take care of all the business that has been offering at any one time this season, and the fact that the Christmas season slightly curtails the demand is somewhat comforting to them. Is it possible that the slight operations of a steam trawler in the Bay last year has had anything to do with the present scarcity? No; incessant unfavorable fishing weather so far this season is very probably wholly responsible. The scarcity applies not only locally; it has been general, and is felt all around the coast. The fact that four men with two small boats can, in a day's fishing, secure $80.00 worth of fresh fish(as was done here on December 14), is strong evidence that there must still be fish in this part of the ocean. The Digby vessels, which are obliged to try to find anchorage in Yarmouth harbor during the rough weather, only get one or two days a week that they can make a set at all, and are unable to get sufficient fish to make a trip worth coming home with; and as they are being offered extremely high prices, these small lots are being sold here for shipment to Boston.

Recently there appeared in one of the "dailies" an item stating there had been a strike among the crew of the banker Dorothy M. Smart. Your correspondent has been unable to find any trace of this "Strike," with the exception of a few men who remained on shore this trip for various reasons, chiefly to prepare for the coming lobster season. As soon as the weather permitted, the schooner sailed for the banks with her usual complement of men.

Great changes are being made in the premises of The Nova Scotia Fish Company, Limited, improving the plant almost beyond recognition. During the past year or so new wharves have ben built, and now the new two-story warehouse is fast nearing completion. The travelling public to and from the Digby—St. John boat will in future be greeted by a passing view of a modern fish plant at the head of the steamboat pier instead of the old, unsightly spots in that important corner of the town. Mr. E. M. Robertson, the manager of the concern, says he expects, when the work is finished, to have one of the most compact and convenient plants in the province. During the winter the upper story of the new warehouse will be used for drilling the local recruits enlisting in the 112th Battalion. The room has a clear floor space 135 feet long and 40 feet wide.

The small coastwise steamers plying the Bay of Fundy, between St. John and Nova Scotia are beginning to haul into winter quarters. The Brunswick came down the bay from Bass River to Margaretville to lay up after completing her last trip from St. John, and the Bridgetown boat Valinda is going to haul up at Annapolis. The Bear River and the John L. Cann will be keeping up a winter service, and the latter will have opposition on the Westport route again, when the Westport III. takes up her old time service in January.

The Maritime Fish Corporation are pushing, and successfully placing on the market in the various cities of the Upper Provinces a new commodity, new in their line, for they have always devoted special attention to the dry, pickled and finnan haddie trade. The new brand which they are now handling has already become favorably known as the "Maple Leaf" brand of Digby Kippers, and the large orders going forward every day by the St. John boat testifies that this new output of the Maritime Fish Corporation is increasing.

These nice, large, fat herring are brought to Digby from cold storage at St. John and put through a perfect smoking process, then packed in neat, new boxes and shipped back to St. John again on their way to the Upper Canadian markets. This new line of the Maritime Fish Corporation is giving extra employment and if the business keeps on growing at the rate it has since the first "trial shipment" it is boun dto become as big a factor in Digby's fish trade as the famous finnan haddie.

There has been much controversy along this part of the coast as to the sailing qualities of the fishing schooners Albert J. Lutz and the Dorothy M. Stuart ever since these two vessels have been in existence. The '"Lutz" was designed by McManus, of Boston, and built by McGill, at Shelburne, in 1908. The "Smart" was designed and built two years later by the same people. Both vessels have since been fishing from Digby, and during that time there have been whispered wild rumors of how one vessel "put it over" the other while running to and from the fishing grounds. There appeared in a recent issue of the "Digby Weekly Courier" an account of how the Lutz on her last run here trimmed the Smart some two hours from Westport, from which place they happened to start for home together, notwithstanding the fact, it is said, that the Smart had shaken the reef out of her mainsail. Now it is quite evident that this report came from a booster of the Lutz, who forgot to state that they both shook the reef out of their mainsails, and also that the Smart was becalmed during a good part of the run! The best evidence of their respective sailing merits was given the public at the Fishermen's Regatta of Western Nova Scotia in the year 1911, and again in 1912, when these two clippers strove to win the '"Brittain Trophy" offered by the Maritime Fish Corporation, Limited. On the former occasion the Smart succeeded in walking away with the handsome trophy, and thereby disappointing a large number of Lutz admirers. But the following year, after lots of preparation scraping spars, reeving new rope, and greasing her bottom, etc., the Lutz, with her "Sailor Captain," the late Capt. J. D. Apt at her wheel, gave a large crowd of people (prominent among them His Royal Highness, Canada's Governor General) an exhibition of sailing and manoeuvering as is very seldom seen, and severely trimmed her rival, who, unfortunately for her, had not gone to such elaborate preparation for the race. So the question as to which vessel is the better sailer is still a live one. In conversation with a few of our men who are well informed on the subject (among them the present captain of the Lutz, who has also sailed the Smart) the writer finds that they do not feel quite safe in committing themselves either one way or the other. May we ask the Editor of the FISHERMAN, who is quite capable of judging and who, we think, knows both vessels well, to settle the question for us?

(Having sailed on the "Smart" in both Cup Races, and on both the "Lutz" and the "Smart" in several Banking voyages with different skippers, I am of the opinion that everything depends on the trim of the vessels and the man who is sailing them. Between the "Smart" and the "Lutz" there is nothing to choose. The late Capt. Apt could get the most out of a vessel, and if he were sailing the "Smart" he could beat the "Lutz"—provided both were in good sailing trim. All things should be equal to make a fair race. In my opinion one craft is as good as the other.—Editor.)

Some consternation was caused along the water front by the occurrance of a series of high tides on December 6, 7 and 8, when the tide arose for more than twenty-seven perpendicular feet, and did not stop when it reached the level of most of the wharves, but gave a free ride to some flat-bottomed boats right over the tops of a few of them. Luckily there was no sea on the Basin at these times, otherwise there might have been some cause for alarm.

On the 29th of November, after a severe illness of eight months, Capt. M. G. Crocker, of Freeport, passed away, causing very deep regret among his large circle of business and social friends. Besides his wholesale fish business, Capt. Crocker was proprietor of a general store at Freeport, and also ran weekly and sometimes semi-weekly trips of fresh fish from that port to the Maritime Fish Corporation, Digby, in the auxiliary schooner Cora Gertie. His sons have now taken hold of the business, and here's to their success in keeping things running smoothly and satisfactorily, as in the past.

The vessels have landed here during the past month as follows:—

Dec.		lbs.
1—	Grace Darling	6,448
	Cora Gertie	33,179
	Grace L.	20,590
7—	Dorothy G. Snow	29,585
8—	Cora Gertie	45,838
	Grace L.	31,529
9—	Dorothy M. Smart	71,593
	Albert J. Lutz	49,941
14—	Cora Gertie	19,327
15—	Grace Darling	5,470
18—	Grace L.	8,185
22—	Cora Gertie	7,385

The following statistics are from the Fishery Overseer's report to the Department, showing fish caught and landed in Digby County for the month of October:

	lbs.
Cod	186,525
Haddock	785,730
Hake	337,200
Cusk	62,700
Herring	111,540
Halibut	1,400
Skate Wings	1,200
Winkles	5,800
Mussels	1,300
Clams, barrels	20

Weather very rough; two boats lost at Freeport.

Fish shipments originating from this port during the month of November aggregate as follows:

18,585 boxes Finan Haddies.
1,527 tubs Dry Hake.
200 tubs Dry Haddock.
29 drums Dry Fish.
80 casks Dry Fish.
127 barrels Fresh Fish.
6 barrels Clams.

11 barrels Dulse.
35 barrels Salt Mackerel.
100 bags Dry Hake Sounds.
8 casks Fish Oil.

NEWFOUNDLAND.

(From Our Own Correspondent.)

A Serious Complication.

As we anticipated in our last communication, the Balkan situation has caused serious difficulties to our fish exporters. A Proclamation in the Royal Gazette of November 9, prohibits the exportation of "Fish of all kinds, whether cured, salted, or fresh," to any country in Europe "except France, Russia, Italy, Spain and Portugal." The announcement came like a bolt from the blue, and there was consternation amongst the fish exporters and amongst the fishermen who were in the city with fish cargoes. Fish was late in coming in owing to rainy weather, which prevented the fishermen from making their voyage earlier. Had it not been for the backward weather these cargoes would have been sold. That Greece would have been a factor in causing the price to go down nobody foresaw. When the Proclamation was issued there were 14 or 15 cargoes at Gibraltar, and other cargoes on the way to the Mediterranean. The immediate effect was a slump in the price of "soft cure," chiefly Labrador fish, from $6.40 down to $5.50.

Last season we shipped about 70,000 quintals of fish to Greece direct, not to speak of large quantities which found their way into that country from Spain to Italy.

A protest against this embargo was made instantly by the exporters, and Mr. Munn, one of our largest exporters, asks: "What is our Board of Trade doing; what is our Government doing? Must we wait till there is a big slump in the market before anything is done? Newfoundlanders have shown themselves ready to suffer any loss, both for the Army and the Navy, and we are ready to suffer financially for the benefit of our Empire and the good of our Allies in this great war: but is there no way that we can turn this threatened disaster to some good account?

"What about the French markets? The Proclamation states we can ship any kind of fish to France, but unfortunately, that market is blocked by tariff restrictions, which make it an utter impossibility to sell our fish in that country. The French tariff has been regulated for the benefit of St. Pierre fishermen, who put up a quality of fish very similar to our Labrador cure. This fishery has been very short this year owing to the almost abandonment of that fishing station by France that has needed all her men for war purposes. Is it not possible for our Government to point out to the British Government what a serious predicament we are being placed in by the loss of the Greek market, and ask for their co-operation to get the French markets opened up for our fishery products, not alone for the benefit of Newfoundland, but for the good of the French consumers who are in need of our fish?"

Newfoundland is being deprived of the Greek market for the benefit of France, and surely it is not too much to ask that we get a quid pro quo. In this crisis it is the duty of our Government to act, and to act at once. Large quantities of fish will be needed in France, and the Imperial authorities owe it to her most ancient and loyal Colony to see that we get a square deal. We have been dubbed a "land of historic misfortune," and we really are. Are we ever to be the "Cinderella of the Colonies?" In the past we received from the Home Government "more kicks than ha'pence," and the grand iniquity still continues. No other section of the Empire has contributed, in proportion to its resources, so liberally as we have done, and our greatest industry is now being handicapped to an extent such as never before. It is hoped in business circles that something will be done.

We understand that negotiations are in progress for the disposal of some of the fish held at Gibraltar either in Italy or in Spain. This will relieve this situation somewhat, but we are still suffering from the Greek embargo. There seems little prospect of getting access to Greece, as things are at present, as the vacillating policy of the King of Greece is a standing menace to the cause of the Allies.

Labrador Fishery.

The Labrador fishery has turned out to be somewhat in excess of last year on the upper part of the coast, and the following shipments have been made.

Ships. Port.	Qtls.
SS. Beothic—Straits	8,559
Mary Lloyd—Battle Harbor	4,000
Mabel D. Hines—Indian Harbor	2,700
Elizabeth—Smokey	4,015
Ellen James—Battle Harbor	4,000
M. Lloyd Morris—Indian Harbor	4,550
Hilda R.—Grady	4,000
M. A. James—Smokey	3,846
Elizabeth Bennett—Holton	4,500
William Pritchard—Indian Tickle	4,720
David Morris—Dark Tickle	4,827
SS. Fagertun—Snug Harbor	14,370
Elizabeth Pritchard—Domino	4,000
Cariad—Black Tickle	3,700
L. Riisdal—Webber's Harbor	3,600
Maclin—Fishing Ship's Harbor	4,000
Gracie—Francis Harbor	3,500
Elizabeth Eleanor—Battle Harbor	4,500
Cybele—Maccovick	3,516
Mary Annie—Flat Islands	3,611
John Llewellyn—Black Tickle	4,720
Callidora—Venison Island	4,000
R. J. Owens—Comfort Bight	3,915
Total	107,149

In our last communication we estimated the up-the-shore catch at less than 100,000 quintals, and we did not include the Straits catch; so our estimate was fairly correct, though some of our local fish dealers thought that we had under estimated the results of the voyage.

We have no accurate statistics regarding the catch of the floaters, as they have not yet shipped their cured fish; but from present indications, the entire catch will be consequently under 300,000 quintals. Ten years ago the Labrador catch was 750,000 quintals. This is a decrease of nearly one hundred per cent. But then fish sold at less than $3.50 a quintal.

The Labrador fishery is declining and there are several apparent reasons for the decline, though the greatest reason which should be investigated has not been explained. The apparent reasons for the decline are:—

1. Fishermen get later to the coast Norway, and this is due to the presence of ice on the coast at a much later period than formerly.

2. Fewer fishermen go to Labrador than in former times; they had several short voyages and abandoned the fishery for the other occupations, such as mining and lumbering. Practically 50 per cent of the men engaged at Grand Falls, Bishop's Falls, and at Bell Island formerly prosecuted the fishery on the oacst.

3. The voyage is "wound up" much earlier than in former years. Years ago, fishermen rarely returned from the coast till the end of October; of late they wind up in September, thus losing a full month's fishing. This is attribuatable to the change in the means of transportation to and from the coast. In former years freighters carried whole families to Labrador with their lares and penates, and they paid 20 cents per quintal on their catch to the master of the freighter. Now most of the planters and even fishing crews avail of the Reid steamers on whih they get a special flat rate of $5 per trip. This has its advantages; but it means an earlier return, and the loss of a month's fishing.

This has been very much in evidence during the season just closed. Fishermen who came up in October report great bodies of fish of large size at nearly all points from Cape Harrison to Battle Harbor, but there were no fishermen to catch it. Vessels that remained late returned with good catches, this was caught presumably after the large body of the fishermen had returned. It seems too bad that the fishermen would not remain later. Even should they be unable to make their fish, well salted Labrador might be kept over till spring in salt bulk, and it could then be marketed even more profitably than has been done during the fall. There is usually a great scarcity of fish in the early Spring months, and we think it would be advisable for our fishermen to hang on to it. With the moter boat facilities which they now have, the hardships have been considerably lessened. Another suggestion, — we think that fishermen's families should not be taken to Labrador. Apart from other reasons, the taking of children to Labrador means that they are deprived of several month's schooling, and this migration to the coast is without doubt one of the causes of the illiteracy which prevails in certain sections of the Island. This matter should be taken up by those interested in the cause of the toilers, and it would be a most commendable move.

It is quite possible that the Fishermen's Protective Union will take up this matter. This organization has now turned its attention to the Labrador fishery, and we have it on excellent authority, that it has in its program a scheme which will revolutionize the whole economic aspect of this important industry. It will establish two or three large depots on the coast primarly for its own membership where all kinds of fishing supplies will be procurable and where fish may be shipped green, thus relieving the fishermen of the obligation of curing their catches. This would have the effect of enabling the fishermen to devote more time to fishing, and the natural consequence would be larger returns and better prices.

There is an indication that herring are again returning to Labrador; and several fishermen secured small takes in nets during the season. A fisherman reports having passed through immense schools of herring when returning from the north in September, and from these indications, the herring industry is likely to revive. This will mean a good deal to the "Stationers" on the coast: it was a very lucrative industry there forty years ago. With improved methods of cure and pack, there is no earthly season why Labrador herring should not find a ready market in sections which now buy so largely of Scotch and Holland packs. The Government of Newfoundland will need to get busy and inaugurate some means of encouraging and protecting this fishery. No country on earth has such an inefficient Fishery Department as this Colony. It is even impossible to procure reliable statistics. Had we such an organization as you have in the Dominion, we would increase the value of our fisheries at least fifty per cent. The "Monthly Bulletin of Sea Fishery Statistics" which has come to us through the courtesy of Professor Prince contains the fishery statistics of the United States for both the Atlantic and the Pacific Coast, for England and Wales, for Scotland, for Norway, for Ireland, but the Newfoundland column, even **for the year 1915 is a blank!**

Herring Fishery.

Extensive preparations were made this season for the prosecution of the Herring Fishery, both West and North, but, as far as the Western fishery is concerned, it looks as if the fishermen were going to fare badly, and there will be considerable loss to those who have gone into the business. There is a large fleet of American, Nova Scotian, and local vessels at Bonne Bay and Bay Islands, and few of them have secured cargoes. Competition was never so keen, and the prices were never higher. There is even an agent of a Chicago firm on the ground this year, who is prepared to handle 40,000 barrels of Scotch pack. Gorton & Pew, and Cunningham & Thompson, of Gloucester who have been buying largely in these sections for some years are also on the job; these have already secured some three or four small cargoes. At Bonne Bay netting began on November 16th with fairly good results; but no very large catches have been made. Some hauls have been made at Woods Island, Crabbs and McIvers, and in Placentia Bay, about Sound Island fishermen have done fairly well. The Metamora, Captain John Lewis is at Harbor Buffet, loading for the American Market, and the Passport, Capt. William Carroll is at Sound Island. It is believed that with the coming of frosty weather, herring will strike in at the bottom of the Bay. Some small catches are reported from Fortune Bay, but we have no reliable statistics.

It is thought by the fishermen in Bay of Islands that the strong gales which prevailed in the early part of November have kept the herring in deep water and that there is still a prospect of their landing before winter sets in. There is little time left for the big fleet to secure saving cargoes as the Bay freezes up at the beginning of January. It freezes very rapidly, and just a couple of years ago, some of the herring fleet got caught and had to be cut out by the Coastal steamer Portia and the Cruiser Fiona.

Some shipments have been made from northern points where herring are reported plentiful. This is especially true of Notre Dame Bay. The fish are of good size and quality, and it is claimed that "Green Bay" herring are far superior to the herring caught in Bonne Bay and Bay of Islands. Mr. Dogget, who has been conducting a herring business in this Bay for some years arrived at Wild Bight on October 2nd and he is putting up large quantities of Scotch cure, while a number of American agents are in the Bay, some of them representing packing concerns and buyers as far west as Chicago.

Some 25 schooners are at Hall's Bay and two American vesels have sailed with cargoes of Scotch cure. Employment is afforded to a large number of people in connection with the industry.

A correspondent of the Mail and Advocate says that hundreds of thousands of dollars might be made out of this fishery if there was a branch railway to Millertown to connect with the Transinsular Railway, so that frozen fish could be sent to the American markets. Hall's Bay, like Bay of Islands and Bonne Bay is usually closed to navigation after the first week of January, and exportation is then out of the question under existing conditions. This correspondent claims that 25,000 barrels of herring might be exported from the South West Arm and Hall's Bay, if they had railway communications. Scotch cure is now selling in the Chicago market at $32 a barrel wholesale, and retailing at 25 cents a pound. The firm of R. B. Boak, so the "News" says to-day is open to purchase 40,000 barrels, if the article is in good condition, and high prices would be paid for quality.

An unsual feature in the herring trade this season is that we have a cargo to France. The French barquentine Raymond which came to St. John's from the Banks for repairs has taken a shipment of herring, loaded by Tasker Cooke, and will likely be forwarded to Havre or Bordeaux where herring are in good demand. It is near to impossible for France to secure herring elsewhere. There is also a demand from Russia; but we are not aware that any local firm has taken up the matter of shipping there, and it is doubtful if we can get into the Russian market owing to difficulty of transportation.

There will be a large shortage in our pack, and this will be disastrous for many of the western fishermen who depend almost entirely on the herring fishery for a living. Last year we exported to:—

Canada (bulk, frozen and pickled) 42,052 barrels valued at	$160.362
United States (bulk, frozen and pickled) 68,523 barrels valued at	$207,084
United Kingdom (pickled) 2,321 barrels valued at	$7,694
British West Indies (pickled) 20,903 barrels valued at	$82,174
France (pickled) 10 barrels valued at	$40.
Germany (pickled) 2,153 barrels valued at	$12,192

We exported a small quantity of smoked fish to the United States and Canada to the value of $2,888.

With the disappearance of herring from Bay of Islands and Bonne Bay, there comes news from Fortune Bay — "the home of the herring", — that there are excellent prospects for securing good catches. Last season herring were plentiful around Connaigre, at Millar's Passage, at Mal Bay, St. Keels, and Bay du Nord,and they were of exceptionally good quality. Very little packing was done, however, as most of the herring were sold as bait to the Banking fleet.

Forty years ago Fortune Bay was the largest herring centre in the Colony; but then the fishermen did little or no packing, but carried their catch to St. Pierre as bait for the French Banking Fleet. The Bait Aca stopped this, and thus handicapped the French in their Banking operations. The fishermen received small returns for their labor however, and there was no end of smuggling into the southern ports of Newfoundland, chiefly sugar, sundries and large quantities of liquor. It is estimated that before the enforcement of the Bait Act the Newfoundland Revenue Act lost fully $50,000 annually owing to the trade in contraband.

American fishermen frequented the Bay in great numbers, and they spent freely, usually paying gold for their cargoes. From old fishermen I have heard that the disappearance of herring from Fortune Bay was due in a large measure to American fishermen. They came to Bay du Nord and other nearby sections, and moored till they secured frozen cargoes, and as my informant—a native of Bay du Nord informed me — "for the one cargo that they took, they destroyed ten", all the small herring went over board, and the foreshore was knee deep with dead and rotten herring far into the month of April. Naturally the waters became "gurried", and this is without doubt one of the causes accounting for the disappearance of herring from their former haunts. If there ever was an illustration of the old adage "wilful waste makes woeful want", we find it in Fortune Bay, especially in the localities mentioned above. The people there have had many lean years, and even now they not particularly prosperous.

The herring fishery is now receiving a good deal of attention in the Colony, and we are beginning to realize our shortcomings, and the necessity of getting more wideawake. There is considerable discussion in the local Press which indicates the trend of public opinion. All are agreed that we can, by using improved methods, and by a competent system of pack and thorough inspection, get hold of the markets which are now controlled by Norwegian, Scotch, and Dutch packers. What we need chiefly is a compulsory Fish Inspection Act which shall be enforced by honest and independent Inspectors who possess a knowledge, not only of our own best methods of cure, but also of the other nations' mode of cure with which we have to compete, and a fair knowledge of the markets of the world.

We should send these men abroad to study the cure in these countries and study the requirements of the foreign markets. They would thus be unabled to give sound and practical advice to our fishermen, and help them to increase the value of their products. Unfortunately, such is our political system that this seems almost Utopian. You do things better in the Dominion where you have comptent men at the head of your Naval Department under which the Atlantic Fisheries are directed. We need some such man as Professor Prince who has wrought so much for your fisheries.

We had at one time in this country a Mr. Nielsen, a capable Norwegian fish expert; but he was hampered very much by political jobbery, and our fishermen, did not seemingly believe in introducing scientific methods into the fishery operations of our people. We are being outstripped in the race for betterment for lack of knowledge.

There is visible reason why we could not put up at least 300,000 barrels of herring annually in Newfoundland, at an export value of $10 per barrel, some $3,000,000 a year which would be distributed amongst our fishermen. The fact is that by proper methods of cure, pack, and handling, the herring fishery might be made a greater asset than our shore fishery at the present time.

Codfish.

Abnormally large prices have been paid for fish this fall; but since the failure of the Greek market, the demand for Labrador is poor. Shore fish is quoted at $7.50 for prime quality, and there are no large stocks. The Oporto market is good, and there are no stocks of Norwegian fish to hamper us. The Brazil markets are strong, and there is no indication of a falling off in price notwithstanding that nearly a score cargoes have gone into Bahia and Pernambuco since September. The demand is especially good in Northern Brazil, where, in October, drums sold as high as 50 shillings as compared with 42 shillings in the early part of September, The shippers are, of course somewhat handicapped by the increased freights and the exchange difficulty, but even with this the prices are remunerative, and there is no indication that they will decline. They usually advance before the Lenten season; so the Brazil outlook is most encouraging.

The exports of fish for November show a large increase over exports for the same period last year. The following table has just been posted at the Board of Trade.

	Dry Cod
For Europe	39,529 qtls.
For Canada	1,973 "
From Labrador:—	
	Dry Cod
For Europe	8,635 qtls.
	Also
	Salt Bulk
For United Kingdom	4,100 qtls.
For United States	580½"
and 8,227 brls herring, 9 brls Salmon.	
From St. John's:—	
For Brazil	36,337 qtls.
For West Indies	14,442 "
For Europe	97,080 "
For United Kingdom	6,924 "
For United States	2,726 "
For Canada	45½"

Also

637 tuns Cod-oil.
52½" Cod-liver oil.
79 " Seal Oil.
26½" Whale Oil.
10,383 brls herring.
486 " turbot.
129 tcs salmon.
401 brls salmon.
20 puncheons trout.
268½ cases lobsters.
2 cases salmon.
27 brls caplin.
700 lbs dried squid.
7,596 lbs whale fins.
45½ tons whale guano.
320 seal skins.

There were grave fears at the beginning of the fishing season that there would be a dearth of carriers to bring the fish to market. Several steamers, however, were secured, and some of the local sealing fleet were requisitioned. The last shipment by the Nascopi, was the largest ever shipped across the herring pond, some 36,000 quintals.

Decline of our Mercantile Marine

No further shipments will be made by our steel fleet as all the ships, including the Iceland, just off the stocks, have been sold to the Russian Government. The sale of this large fleet means that the seal fishery will be conducted during the coming season by the wooden ships, eight in number. This is a very serious blow to the trade, as it will deprive us of carriers and also throw the captains, engineers, and crews out of employment. The vessels had an average equipment of thirty men; so the outlook is very serious. What these will do is beyond conjecture. Moreover, fully 2,500 men will be unable to secure berths for the seal fishery, as the wooden ships will accommodate not more than 1,200 men. The loss will be enormous. It is said that the ships were sold at high prices, so the shareholders will reap an abundant harvest.

Our mercantile marine is fast declining; few large vessels are being purchased to replace the losses which we have sustained during the past decade. As an illustration of our shortage, we had to charter 15 vessels of the Lunenberg fleet to carry our fish to Oporto this season. Anyone who views the situation must realize that it is alarming. Ten years ago we had 1,400 vessels engaged in the Labrador fisheries; and formerly during the month of October, St. John's used to be a "sea of masts."

There is very little shipbuilding going on, and we are not building any large vessels, whereas in the 70's of the last century, we turned out some splendid specimens of marine architecture — vessels of 150 tons. Our Government grants a bounty to builders, but it evidently, not large enough to warrant the undertaking of building large vessels. Practically all our Banking fleet have come from the United States or Nova Scotia.

Cod Oil

The demand for the cod oil is greater than the supply, and we have heard that the price is now $160 per tun. Earlier in November it reached $140 in the open market and fishermen sold at this price and were pleased with their sale. The United States demand is large, especially in New York and New Jersey. Enquiries are coming in daily regarding cod oil. American manufacturers are hard hit by the oil shortage, as their regular source of supply, chiefly Norway, has been cut off. The high price for oil will compensate our fishermen somewhat for the shortage in their catch.

Lobsters.

We report the smallest catch of lobsters in the history of the industry in Newfoundland. The entire catch is less than 6,000 cases. Last year the catch was 12,000 cases: and in 1913 it was 20,000 cases. The total value of this season's catch is $72,000. A close season is recommended by those who are interested in this fishery; and the chances are that we shall have legislation to this effect during the present session of the Assembly.

Boisterous Weather

This fall has been the stormiest within living memory. From the latter part of October till the closing days of November we have been in the grip of the storm king. Shipping suffered heavily and great damage was done to wharves and waterside premises at several points to the northward. The fishermen who reached towards the end of October were unable to handle their fish for a considerable time, and then, when they had settled up a continuance of stormy weather kept them in port. Vessels from Nova Scotian and American points were out for weeks, and grave fears were entertained for a while that they had met disaster. They have all made port. Vessels that left St. John's for points in Bonavista and Green Bay were caught in one of the furious gales and some of them sustained considerable damage.

The "Swallow" and the "Rose" were missing for a long while. The "Swallow" returning from Labrador with a number of freighters, and the "Rose" was coming from the Groais Islands. The crew of the latter were picked up off Cape Race by the Mary Duff bound to Sydney from Carbonear. They were in an exhausted condition when rescued, and lost almost all that they were owners of. The vessel had a value of fish and oil, none of which was insured. One of the passengers who was coming to the city to purchase his winter's supplies, in the excitement leaving the doomed vessel, lost his wallet containing $700. The loss to the skipper of the "Rose" is a severe one as none of his cargo was insured. The "Swallow" was storm swept for nearly two weeks, and the crew and freighters were picked off by the Norwegian steamer Hercules from the United States to Norway, and were landed at Stornoway, in the Hebrides. The "Swallow" had been given up as lost. Some years ago a similar incident occurred, when the crew of the Pioneer were taken off and brought to Rotterdam. So "there's always hope from the sea."

Notes

The S.S. Lavengro, taking 5,760 qtls of codfish and 45 tierces of salmon left Fogo on December 10th for Naples.

The following vessels with cargoes of herring left Bonne Bay on the same date for Gloucester: the John Hays Hammond with 1,494 brls for Lemuel S. Spinney; the Muriel Walters with 1,415 brls for Walters, and the Vera Himmelman with 1,500 brls for A. L. Trait. The Hammond, in addition to her herring cargo took 8,000 lbs. of codfish.

ST. JOHN'S, NEWFOUNDLAND.

(Special Correspondence.)

The Codfish Market Improves.

Early last month as result of strained diplomatic relations between England and Greece an embargo was enforced on codfish shipments from Newfoundland to that country. Many shipments were at this time on the way there, in fact most, and when the vessels reached Gibraltar, they were there detained for an indefinite period.

The Proclamation read, forbidding "Any articles that could be utilized for warlike purposes, or serve to build up national stock of supplies" from entering Greece.

The natural result of this prohibition was to make the local demand for fish fall off perceptably, and a slump in price seemed imminent.

The very latest news, however, received by Monroe & Co., from their agents in London informs them that the Juianne, one of their vessels held at Gibraltar for ten days, had been allowed to proceed to Greece. Although as yet no official confirmation has ben received stating that the embargo has been lifted this message is taken as an almost positive proof of the readjustment of normal conditions.

Report of Newfoundland (codfish) stocks held at Oporto for the last two weeks' was received by the Board of Trade yesterday.

	Past week.	Prev. week
Stocks (Nfld)	15,040	18,920
Consumption	3,585	4,230
Stocks (Norg.)	590	705
Consumption	175	470

Codfish Prices.

Best quality of Shore fish is very firm this week at $7.50 to $7.60; although shipments away have been unusually large for the last two months, there are large amounts still remaining in store in St. John's.

Labrador fish, much of which goes to supply the Greek market, has being fluctuating as the relations with Greece have become more or less strained.

Considerable lots of Labrador fish arrived in St. John's during the last few days, most of which went to parties who had previously contracted for the shipments. Otherwise, the price asked for this fish was $5.50, but the market was very weak and sales were few.

Shippers of cod oil were recently notified that all shipments to foreign markets, which applied particularly to United States, should go to its consignee only with the approval of the Government authorities at St. John's, as there was great reason to believe that quantities of oil produced in Newfoundland, had entered the enemy's country through neutral buyers. This order, however, has had little or no effect so far on the price of oil, and the price this week is firm at $145 with a good demand at this figure. Refined oil is quoted at $1.30 per gallon.

The Herring Fishery.

The herring fishery to date is a failure at Bay of Islands, where heretofore the bulk of the catch was generally secured. In Bonne Bay, however, herring has struck in, in abundance, and mostly all the schooners have proceeded there and from all accounts all are doing exceptionally well.

In Green Bay also herring is very plentiful. The fish secured being of an exceptionally large size. The weather conditions during the past few days have impeded operations, but if fine weather soon prevails the catch at this part of the coast will be exceptionally large.

Last week there were twenty-five schooners loading herring at Bonne Bay, and up to Saturday, December 11, sixteen schooners had loaded and proceeded to Canada and the United States.

Competition amongst the buyers is keener than ever before and prices paid per barrel range from $3 to $3.50, which is the highest price paid in recent years. For the first two weeks of December all the fishermen averaged $100.00 per week, whilst the high liners for the week earned $180.

A significant and most hopeful departure from the old methods of cure is also to be noted, and considerable quantities are being put up in "Scotch" pack. The defect heretofore in all local attempts to give the Scotch pack, lay in poor barrelling. This year Mr. W. Finn has secured a large factory at Bay or Islands, where the barrels are turned out. The material for Stavesk is imported. Mr. Finn has a good staff of men employed and has, we understand, large orders to fill.

The Winter Bank Fishery.

The fisherman on the south west part of the coast are already making ready for the winter fishery in the Gulf of St. Lawrence, which will this year begin somewhat earlier than usual. The very attractive prices that now prevail are stimulating the fishermen engaged in this fishery to prosecute it next season more vigorously than ever before.

Schooner Building.

One of the best signs of the times perhaps in fishing circles is the activity that is about to prevail the coming winter in building fishing schooners. On the east coast of the Island in Bonavista, Trinity, and Notre Dame Bays, there will be, it is hoped, no less than twenty-five new schooners built, while on the south and western coasts there will be a total of ten or fifteen more constructed; to this number must be added about twenty others which are to undergo extensive repairs and refitting.

The New Demand for Newfoundland Codfish.

Owing to the English sources of supply of fish, the North Sea, being no longer productive to any extent owing to its being in the war zone, Newfoundland merchants were asked this fall to supply part of shortage, and shipments already gone to England to date this fall have reached a grand total of 20,000 qtls., compared to 7,520 qtls. for all last year. The total shipments, therefore, to England this year is larger by far than for a number of years past. The English demand for fresh fish is also considerable, but the absence of cold storage renders this industry impossible on our part.

Says the Trade Review in commenting on this subject: "This is a straw that shows plainly how the wind blows. They will require more fish next year, both in England and in Ireland especially, if the war continues. But the British demand is chiefly for fresh fish: cod, herring and lobsters. We have the fish but we can never hope to get into the market across the Atlantic with it, unless a system of cold storage on a large scale is organized and placed within reach of those who catch the fish."

During the last two weeks twenty schooners have sailed with loads of fish from St. John's and other ports around the coast to the Mediterranean and Brazilian markets taking a total of approximately 60,000 qtls. The largest single shipment of 15,000 qtls. went by the Norwegian steamer Vika, from the Newfoundland Produce Co., St. John's.

Many local vessels are now engaged freighting herring to Canadian and American ports. Capt. William Carroll in his schooner "Passport" has just left with a load for the port of Boston.

Capt. John Lewis, the veteran fish killer, has also taken a load in his motor schooner to America. Capt. Lewis, the first Newfoundland Banking shipper to use a motor in a schooner fishing on the Grand Banks only finished fishing a short time ago, he was high liner for the time fishing having taken something over four thousand quintals.

The schooner Romance entered Bonne Bay yesterday to load herring for the Gordon Pew Co. of Glouster. The Gorton Pew Co. are doing just now an immense herring export trade.

Returns from one lobster fishery just completed show the total pack for the season is 5,600 cases (each case containing forty-eight 1-lb. tins). The lobsters averaged to the packers $13.00 per case, so that the total industry was worth$ 73,000. It is thought that even fewer packers than this year will next year prosecute this fishery.

Baitings for the Bank fishery that opens about the beginning of the New Year will be supplied from Gloucester, it will consist principally of frozen squid.

Motor agents are now doing a thriving business amongst the fishermen around the coast and every fisherman who can afford it is installing one in his boat. There is quite a large field in Newfoundland for dealers in these machines.

We understand that negotiations for the establishment of a large fish manufacturing company in St. John's have been completely finalized and the company is about to start the construction of the plant for the manufacture of the fishery products. The site of the plant will be, it is thought, located at Hoylestown, a cove near the entrance of St. John's harbor. The company is being financed by American money. Mr. E. St. John Howley belonging to this city but for years associated with the parent plant at New York is manager and is now in St. John's to superintend the construction of the factories. The plant, it is anticipated, will be ready for business next spring, and its consumption of fishery products will be enormous, which will mean, no doubt, increased value for our fish.

YARMOUTH, N. S.

(Special Correspondence.)

There has been considerable activity in fishing circles during the past few weeks. Whenever the weather has allowed the men were at it early and late, and in consequence there has been considerable fish landed and shipped. There has been considerable rivalry in buying, too, owing to the fact that the Gateway Fish Company has come under new control. This company, since its organization, has never been a factor in the fresh fish business, it having devoted all its energies to the manufacturing end. For this reason they have not been competitors in the buying of the schooner fares; the boats which landed their small fares every day gave them the better fish for their purposes—fish which were as fresh as it was possible to get them, and which made the better article when manufactured. They still stick to this class of fish for their own use, but they are now competing with the other fellows in buying vessel fares, and shipping fresh to Boston. As a consequence of this the Digby vessels have been selling here almost exclusively, and they have been getting topnotch prices. The rivalry for cargoes on some occasions has been very keen, and litigation is pending over one, a fare landed by the Loran B. Snow. The Gateway Company claim that they had closed the bargaining for this fare, and that it belonged to them, but before it was discharged a better offer was made, and they lost it. J. M. Walker, ex-manager of the Bank of Nova Scotia, and associates, now control the destinies of the Gateway, with Stephen D. Killam as wharf manager, in place of Dalton Peters, who has resigned and returned, with his family, to his old home in Westport.

The past month has seen the last of the fresh mackerel shipments for this year—a few barrels only being sent. It has also seen the opening of the 1915-16 lobster season, the first shipment of these crustaceans being made on the 18th, consisting of about 400 crates. Here in western Nova Scotia the lobster fshery is the great fishery. Hundreds of men and boats engage in this industry, which gives employment to thousands. If one could see in a pile the immense number of laths required to build the pots it would be a revelation. Tens of thousands of pots strew the bottom all along the coast, and these traps rigged ready for the water cost the fishermen about a dollar each, when they make them themselves, as ninety-nine out of a hundred do. Then in the run of a season thousands of them are lost; some get caught on the bottom, others are washed ashore and smashed by the gales, and still others, it must be admitted, are stolen, so it can easily be seen that the manufacture of the pots alone is an industry of no mean proportions. The building of the boats requires another small army of men; the bait, too, which mostly comes from New Brunswick, gives employment to a large number, to say nothing of the cordage and twine used. The lobster must be a wonderful creature, though, because, in spite of all the efforts which are being made to exterminate him he bobs up serenely every year in practicaly undiminished numbers, although at the rate the industry is growing there will soon be a fisherman for every lobster.

The Yarmouth Fish Company is the latest addition to our local business houses. It has been but recently organized, and the following are the provisional directors:—

President, Captain Augustus Cann; Sec.-Treas., George R. Earl; L. C. Gardner, J. W. Grant, G. Prescott Baker.

The other shareholders in the company are: Landry and Cameron, E. K. Spring, C. C. Richards, Arthur O'Brien, A. P. Stoneman, H. S. Crowell and Walter D. Sweeney.

There was launched a few weeks ago, from the shipyard of Joseph McGill, a power fishing schooner for this company, the "Yafico" (the name being a composite one, made up of the first two letters in each of the three words forming the name of the company). She was built on the most up-to-date lines from plans published in "Motor Boat"—lines which have been adopted in many of the New England shipyards ,twenty six of the designs being turned out from one Maine yard alone during the year. She is a power boat with sails as auxiliary, being driven by a 40 horse-power Bridgeport motor, which was installed by C. J. O'Hanley. She will be used for all branches of fishing—halibuttong, haddocking, mackereling or swordfishing. The Yafico is a vessel 70 feet long, 16 feet wide, and 7 feet deep. She has specially roomy accommodations for the crew, the forecastle being very much larger than in the majority of vessels of her size. Captain Fred Murphy, of Pubnico, has been appointed skipper.

Another Yarmouth schooner, the Eddie J., owned by Henry A. Amiro, is being rebuilt in McGill's shipyard at Shelburne, and has been renamed the Edith Cavell. She will be ready for the spring fishing.

The fleet of lobster smacks which make Yarmouth a headquarters during the season, has been increased by the Oleanglea—owned by O'Leary and Lee, who own a lobster factory on Deep Cove Island.

Samuel C. Hood, Jr., the efficient local manager of Neville's office, has enlisted, and is now in training in Halifax. Mr. Neville himself has been, and is seriously ill at the Grand Hotel here.

Following have been the exports for the month:

Live lobsters, crates	400
Fresh fish, cases	688
Eels, boxes	54
Smelts, boxes	278
Finnan Haddies, boxes	913
Boneless fish, boxes	3,588
Scallops, half-barrels	96
Salt Herring, barrels	1,241
Fish clippings, barrels	3
Dry salt fish, drums	3,538
Pickled Fish, cases	434
Salt mackerel, barrels	147
Fish waste, barrels	150
Hake sounds, barrels	58
Clams, barrels	15
Periwinkles, barrels	5
Fresh Mackerel, barrels	170
Fish scraps, barrels	13
Fresh halibut, cases	12
Salmon, boxes	1
Cod oil, barrels	11
Pickled sounds, barrels	11
Fillets, boxes	20
Pickled cod, packages	91
Bloaters, boxes	25

To Brazil:—
994 tubs dry salt fish.
310 tubs dry salt hake.
To New York (for export):—
1,025 boxes codfish.
To Havana:—
400 cases codfish.
233 cases dry salt fish.
To Cuba:—
65 drums dry salt fish.

A glance over the past year does not show anything phenomenal in the growth of the fishing business here. That there has been a growth no one can gainsay, but it has been slight. The foregoing letter of the doings in the industry of the past month has the details of the most important changes in it. All the companies have done a good steady business, but none have been rushed beyond their capacity by any means. Practically the same number of boats, with but few changes in the personnel of the crews, prosecuted the industry. One or two new boats were built, and these replaced the few which were retired from active service. The two largest boats to be withdrawn were the C. M. B., which went to pieces on the beach, where she was hauled up the season before, and the Silver Spray, which has been on the market all the season.

Some big money has been made at different times this season, but principally in the spring mackerel run. This was the biggest run in years, and full advantage was taken of it by the "drifters" up and down the shore, but the traps did not come in for much of the luck. They had almost all been wrecked a day or two previous, and repairs had not been effected, and in the case of those which had not been hauled the fish were a little too far offshore for them.

The last lobster season was a good one, although it had a gloomy outlook. It was thought that the European market would be lost entirely on account of the war, but the factories have had no difficulty in disposing of all they put up. The factories are all opening again this season, under the same management as in former years, except in one case, the Hiram Beveridge factory at Pinchney's Point, having been sold to Paul L. Hatfield and Captain L. M. Hatfield, of Arcadia.

During the summer dogfish interfered with line fishing more than usual, and very little fish, comparatively, was landed. The catch of swordfish and albacores showed an improvement over that of former years, and the prices kept well up.

The outlook for next year is bright. New blood has been infused, and there will likely be "something doin'" as soon as the spring fishing opens. The new enterprises are being watched with considerable interest and no doubt if they are seen to make a go of it there will be others in it before many months roll around.

THE PACIFIC FISHFRIES

(Special Correspondence.)

A CLOSE SEASON FOR HALIBUT?

A very great deal of agitation has taken place as a result of the heavy catches of fish during the winter months off the Alaska Banks. It is an undisputed fact that each and every fish taken off these grounds is full of ripe spawn and ripe milt, and everyone engaged in the industry agrees that the permanency of the halibut industry is being vitally endangered unless International Regulations are immediately put into effect whereby a Closed Season is arranged for. It is generally conceded that it would be futile for either the Canadian Government or the United States Government to pass regulations embracing a Closed Season for halibut fishing, as a very large per cent of all halibut caught during the entire year is caught in open waters or waters beyond the jurisdiction of any one country. Unless the Dominion and United States Governments agree upon legislation which will prohibit the landing of halibut during the Closed Season it would result in ships of other nationalities fishing in these open waters and having the advantage over Canadian and United States fishing vessels.

The Fishing Vessels' Owners' Association of Seattle, embracing all halibut fishing vessels independently owned, have already petitioned the U. S. Government for a Closed Season on halibut. Your correspondent has interviewed a great many fishermen and the Captains and other officers of many of the halibut fishing vessels operating out of the ports of Ketchikan, Alaska, Prince Rupert, Vancouver, and Seattle, and every person interviewed agrees that all halibut taken during the months of December, January and February represent halibut that are either spawning or about to spawn. They all agree that the death knell to the industry has been sounded unless a Closed Season is made effective at a very early date. Another very bad feature of the winter fishing that has a tendency to endanger the permanency of the business is the fact that enormous losses of gear occur on account of the bad weather encountered. The steamers or schooners will, on a good fishing day, set out their whole string of gear, and if the weather turns suddenly bad, which it very frequently does, it prohibits the recovery of the gear, with the result that vast quantities of fish are killed, but not taken, and the grounds badly fouled. The fouling of grounds with gear or offal means that fish will keep clear of such grounds for many years to come.

It is universally conceded that halibut in Pacific waters have become scarcer each succeeding year, and that the average size of the fish is getting smaller each year. In their anxiety to procure halibut the vessels have been going farther afield each year, until at the present time they are fishing about as far to the North and West as it is possible to go. Should the present breeding grounds be depleted it is feared that halibut will be so scarce and the cost of production so correspondingly high as to make this valuable food product a luxury in the very near future. It is also feared that unless the halibut receive some protection, which they have never had, to date, that many hundreds of well paid men will be forced out of employment, to say nothing of large sums of money which have been invested in shore equipment and plants being unable to pay expenses on account of insufficient supply to keep them going.

VANCOUVER NOTES.

The refrigerator steamer Elihu Thomson reached Vancouver the first week in December on her last trip of 1915. She brought with her over 600,000 lbs. of frozen halibut from the cold storage plant of the New England Fish Company at Ketchikan. The frozen halibut were delivered to the Vancouver branch of that company to be held at Vancouver in cold storage pending shipping orders from Eastern cities. In the five trips which the Elihu Thomson has made to Vancouver for the New England Fish Company this year, she has brought down over 3,000,000 lbs. of frozen halibut and salmon. The balance of the Ketchikan pack will be brought to the rails by the steamers Northland and Al-Ki.

Capt. G. H. Nicholson, and Mr. G. A. McNicholl, representing the Grand Trunk Pacific Railway Company at Vancouver, and Prince Rupert respectively, paid a visit recently to Ketchikan, Alaska, to look over the possibilities of that port in connection with the discharging of halibut fishing vessels and trans-shipment of their cargoes to Prince Rupert for shipment East. Messrs. Nicholson and McNicholl were tendered a banquet by the Ketchikan Board of Trade.

The New England Fish Company's fishing steamer New England has been fitted with a steam gurdy, and will operate as a Long Line fisherman during the present winter.

Mr. H. C. Nunan, manager of Atlin Fisheries, Limited, of Prince Rupert, B.C., returned to the city after an absence of several weeks.

The American halibut schooner Kinge and Winge, reached Prince Rupert on December 2nd, with 110,000 lbs. of fish. She was leaking badly on account of having stranded while on her way South.

Mr. P. L. Smithers, manager of the Booth Fisheries Cold Storage Co., of Chicago, recently visited Seattle, Washington.

Over 40 of the independent halibut schooners of the Seattle fleet have tied up at that port for the usual annual overhauling and lay-up during the bad weather. Only a small portion of the larger halibut schooners are operating during the month of December, but it is expected that the entire fleet will be fishing again the latter part of January.

The Halibut fishing steamer Manhattan; of the New England Fish Company's fleet, reached Vancouver December 6, with 250,000 lbs. of halibut from the Alaskan Banks, being the heaviest single catch landed in British Columbia during the year 1915.

The Halibut fishing steamer New England, fishing with the SS. Manhattan off the Alaskan Coast, brought in a full cargo of 200,000 lbs., and landed same at the Ketchikan plant of the New England Fish Company, same to be frozen and for shipment later to Eastern United States markets.

The three British trawlers belonging to The Canadian Fish and Cold Storage Company, Limited, of Prince Rupert, during the past month, operated very successfully, the vessels making quick trips and delivering from 120,000 to 140,000 lbs. of fish each trip.

The telegraphic rates between Canada and places in Alaska has been reduced recently by the introduction of the lettergram rate. Formerly all messages were handled by cable at a rate of 22c per word. The rate now is approximately $1.65 for 50 words sent as a night lettergram.

Mr. T. H. Johnson, manager of The Canadian Fish and Cold Storage Co., Limited, of Prince Rupert, returned to Prince Rupert via Vancouver, December 18, after an extended visit to California.

Many accidents to halibut vessels have occurred during the months of November and December on account of bad weather, stranding, etc. The most serious accidents reported were to the Seattle schooners Kinge and Winge, Tyee, and Constance, the latter vessel breaking a crank shaft. The Seattle halibut schooner Idaho made one of the longest voyages on record, bringing in a fare of approximately 20,000 lbs., after being out of port nearly two months' time, during which considerable anxiety was felt over the possible loss of the vessel.

PRINCE RUPERT NOTES.

(Special Correspondence.)

Stormy and unsettled weather slightly reduced the average monthly receipts at the Port of Prince Rupert in November, but notwithstanding a good showing was made. December being the Xmas month has witnessed the departure of the major part of the Southern fishing boats to the South for the holidays. This it is rumored will be the last time these boats will go to the South for Xmas, as they are said to be coming to Prince Rupert early in the New Year using this port as permanent headquarters. Considerable movement of families from the South is expected in consequence.

The general fishing interests of the Port held several meetings recently in connection with various concessions that are being asked for from the Dominion Government relating to the fishing interests of the North. The two British Columbia representatives of the Fisheries Advisory Board at Ottawa visited Prince Rupert, and the claims of the fishing interests, backed by the unanimous support of all classes were impressed upon these gentlemen, and they were asked to bring the matters under discussion before the Advisory Board at Ottawa at the meeting to be held in January.

The concessions govern various phases of the fishing industry the most important being the license system under which present fishery operations are conducted, the herring industry, the catching of bait, the removal of restrictions as to the instalment of new cannery plants, and the export of shell fish.

The question of the herring industry, was one which Messrs. Cunningham and McIntyre, in their capacity as Government Inspectors were enabled to deal with on the spot and as a result of recommendations wired to Ottawa, the license area was extended; making it possible for the fishermen to follow the herring under a single license, where previously they were allowed to only take the herring in the area specified on the license.

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Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, FEBRUARY, 1916 No. 2

LUNENBURG HARBOUR

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ONTARIO
Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted —October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

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are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resider fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries
Of the Province of Quebec

Department of The Naval Service

FISHERIES:

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $34,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on May 1st, 1915

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)				1 April to 15 June.
Maskinonge				15 April to 15 June.
Ounaniche				1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	
Pickerel				April 15 to May 15.
Salmon (netting)	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb. 28	Aug. 1 to April 30.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Sept. 16 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	April 1 to June 30
Sturgeon		June 1 to July 1.		June 1 to June 30.
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to April 30
Salmon Trout				Oct. 15 to Dec 1.
Whitefish				

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)	a15 April to 15 June.			
Maskinonge	15 April to 15 June.			
Ounaniche				
Oysters				May 1 to Aug. 31
Quahaugs				
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	
Salmon (netting)				
Salmon (angling)				
Smelts				See regulations.
Sturgeon		gMay 15 to June 15.	gMay 15 to June 15.	
Speckled Trout	Sept. 15 to April 30.			
Salmon Trout	hNov. 1 to Nov. 30.			
Whitefish	hNov. 1 to Nov. 30.	Sept. 15 to Nov. 19.	iSept. 15 to Dec. 15.	

a—Except in Lake Erie west of Pt. Pelee and around Pelee Island, where close season is May 25 to July 15.

b—Except on leased areas, where close season is from 1 July to 31 Aug.

c—No close season in St. Clair River and off Lambton County.

d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.

e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.

f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.

g—Sturgeon fishing prohibited until Jan. 1, 1916.

h—No close season in Lake Erie.

i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.

For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED
TO THE COMMERCIAL FISHERIES
OF CANADA AND NEWFOUNDLAND
THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE
- OF FISH PRODUCTS - -

F. WILLIAM WALLACE
EDITOR

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Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, FEBRUARY, 1916 No. 2

February Fish Day Calendar

1916			FEBRUARY			1916
Sun.	Mon.	Tues.	Wed.	Thurs	Fri.	Sat.
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29				

February 29th, National Fish Day.

ANNUAL CONVENTION OF THE CANADIAN FISHERIES ASSOCIATION.

At a well attended meeting of the Executive Committee held in Montreal on January 3rd, it was decided to hold the Annual Meeting of the Canadian Fisheries Association in the City of Montreal on Monday, January 31st — the date set by By-Law XI, Sec. I. It was further arranged that the meeting would be held in the Windsor Hotel commencing at 10 a.m. for the open discussion of matters of importance to the Fishing Industry. After luncheon, the meeting will continue and a feature will be the reading of papers on fishery subjects by competent authorities who have kindly consented to be present. In the evening a banquet will be held at which the Minister of Marine and Fisheries, the Hon. John D. Hazen, K.C., LL.D., M.P., Dr. E. E. Prince, Dominion Commissioner of Fisheries, Mr. W. A. Found, Superintendent of Fisheries, and representatives of the Provincial Governments and notable fishery men will be guests. On Tuesday, the various Committees will convene for the purpose of discussing and acting upon recommendations and resolutions in connection with the Industry.

Those who attended the Convention in Ottawa last February will remember the pleasant and interesting time they had. Indications are that the coming event will eclipse the former one and those who attend will have the pleasure of meeting old friends and business relations under the pleasantest auspices: they will be enabled to expound their views upon important matters in connection with the fisheries and have the privilege of meeting and listening to the speeches of men who loom large in the administration of Canada's Fishing Industry. The Canadian Fisheries Association is past the embryo stage and is now a well established organization which no up-to-date man in the Fishing Industry can afford to ignore. Through its efforts the fish men of Canada are brought together for their acquaintanceship and mutual business benefit which in itself is one of the very best reasons why all who can possibly make the journey should attend.

Several of the fish men who came to the Convention at Ottawa last winter declared that it was worth the time and expense to come and meet the trade and Government officials personally. The entertainment of the out-of-town guests will be undertaken by the

Montreal members of the Association who have formed themselves into an Entertainment Committee for this purpose. In a Convention of this nature, business rivalries are forgotten and one and all fraternize on the common basis of being "in the Trade" and the small dealer is just as welcome and is entitled to all the privileges of his wealthier brother.

THE ASSOCIATION EXTENDS AN INVITATION TO ALL THOSE INTERESTED IN THE FISHING INDUSTRY OF CANADA WHETHER THEY ARE MEMBERS OR NOT. If you are engaged in either catching or distributing fish you are welcome. The fishermen is at liberty to attend the meetings and the banquet on the same plane as the large dealer. The Association is in existence for the mutual benefit of all and a most important feature of the meeting will be the discussion of ways and means for the formation of local branches of the Association at various points in order that the fishermen and small dealer may become members of the organization and enjoy its privileges. Remember the date! January 31st, at the Windsor Hotel, Montreal. On arrival register your name with the Secretary of the Association at the Hotel, when all particulars and information will be furnished you. Do not fail to attend, and make this Convention the best and most successful ever held in this or any other industry.

THE CANADIAN FISHERIES ASSOCIATION AND TRANSPORTATION QUESTIONS

At an Executive Committee meeting of the C. F. A. held in Montreal in January 3rd, a communication to interested parties in the fish trade from the allied Express Companies was submitted to the Association for consideration and protest. The notice was to the effect that in the future the Express Companies would discontinue the cartage service on carloads of fish from the Pacific Coast at destination points. In other words it meant that the consignees would have to bear the cost of carting the fish from the car to warehouse, storage or customer—an expense which the product would not support without injury to the business. The margin of profit is small enough already and with the expense of cartage added it would mean that the extra charge would have to be borne by the consumer. The trade in Pacific halibut will not permit of a rise in the price of the fish and the natural outcome would be a falling off in the business owing to the consumer refusing to pay. The transportation companies would also suffer in loss of revenue from consequent decreased shipments.

A motion was passed:—"That the subject matter of the communication from the Express Companies to the Fish Trade with reference to deliveries of fish arriving in car load lots under special fish tariff rates be referred to the Transportation Committee of the Association with full power to take such action as may be necessary in connection therewith."

The case was then handed over to Mr. A. H. Brittain, Chairman of the Transportation Committee, and the Secretary was instructed to act with him. On January 13th, the Transportation Committee met in Montreal, and the minutes of the meeting are as follows:—

The Chairman (Mr. A. H. Brittain) read a copy of a letter which the Association wrote to the Secretary of the Board of Railway Commissioners asking them to suspend the proposed action of the Express Companies in refusing to perform delivery service on carloads of fish emanating from Pacific Coast points. A copy of the same letter was sent to the Express Traffic Association.

The Chairman reported that the Board has granted the plea of the Canadian Fisheries Association and had suspended the new tariff pending a hearing by the Board of the interested parties. He stated that as soon as the Railway Commissioners notified those interested of the date of the hearing, the Canadian Fisheries Association would appear before the Commission setting forth reasons why the cartage on carloads of fish from the Pacific Coast should be continued as heretofore. Copies of communications from the Express Traffic Association to the Railway Commission setting forth their reasons why this cartage service should be discontinued were read to the meeting, as well as communications from Mr. W. H. Barker, President of the B. C. Packers' Association, Vancouver, and Mr. W. Douglas, Guest Fish Company, Winnipeg — both members of the Transportation Committee — giving arguments against the Express Companies' move. All the correspondence was placed on file.

The Chairman recommended that fish firms interested should IMMEDIATELY SUBMIT THEIR REASONS AGAINST THE DISCONTINUANCE OF THE CARTAGE SERVICE TO THE TRANSPORTATION COMMITTEE OF THE CANADIAN FISHERIES ASSOCIATION. The Chairman promised the meeting that he would personally attend the hearing of the Railway Commission on this matter.

The fish firms interested in this matter should write at once to the Secretary-Treasurer, Canadian Fisheries Association, 600 Read Building, Montreal, P.Q.

THE SCIENTIST AND THE FISHERMAN.

We publish a valuable article in this issue from the pen of Dr. Prince, Dominion Commissioner of Fisheries, upon experiments conducted in the smoking and curing of haddocks. Scientific work of this nature is most commendable, and every fisherman interested in smoking fish for market should study the results of the experiments. Of course, practical fishermen and fish smokers are very conservative, and imagine that no Professor of Science or Biological Student can teach them anything relating to their own business, but that is where they make a grave mistake.

This point of view does more to hinder progress and the adoption of up-to-date methods than anything else—especially so in Canada. The same spirit animated the fishermen of other countries at one time, but when it was proved to them that scientific fishing and the handling, curing and smoking of fish in the manner recommended by clever men who made a study of the subject, paid them better, then they eagerly fell in line and worked hand in hand with the scientists. The fishermen of Norway, Sweden, Denmark, and Holland pay strict attention to the scientific aspects of their calling, and as a result produce the finest qualities of cured fish in the world.

Because a man cannot bait, set and haul four tubs of trawl in a heaving dory or husk a gang of gill-nets like an able-bodied fisherman, is no reason why he should not be able to teach the same fisherman how to catch and handle fish properly. Lord Kelvin, the eminent scientist, was never a sailor, yet he wrote books on navigation and improved the mariner's compass. He was able to navigate a ship around the world a great deal better than any master mariner of the present day, yet his seafaring experience was limited to a voyage or two.

If our fishermen intend to make the most of their profession they must keep pace with the times and follow the advice of the scientists who devote their knowledge to a study of fish life and fish preparation. The experiments and data prepared by such men as Dr. Hjort, Dr. Prince, Dr. Stafford, Prof. Thomson, Mr. J. J. Cowie and others in the service of the Canadian Government are not merely investigations conducted for their own amusement and information. THEY ARE WORKING FOR THE BENEFIT OF THE CANADIAN FISHERMEN, and any intelligent fisherman can obtain the results of their experiments and investigations by writing the Marine and Fisheries Department at Ottawa.

The sooner our fishermen realize this, the better for them and the fisheries of Canada. It will pay a fisherman to procure the pamphlets issued periodically by the Biological Department and the Marine and Fisheries Department and read them. He will find a lot of valuable information in them which he can use to advantage. The small packer of herring and mackerel will learn enough valuable information in a study of the Pickled Fish Inspection Act to enable him to put up a better article and at the same time double his profit.

One of the smartest fishermen in Newfoundland, Captain John Lewis, is a close student of scientific fishing. He was the first in the island to instal a crude oil engine in his schooner "Metamora," and in his fishing work he uses a thermometer and takes the temperature of the water in order to locate favourable spots for fishing. At first he was laughed at by the barnacle-backs who fished in their grandfather's way, but when he kept bringing in "high line" trips every voyage, they opined there was something in it after all.

We also recommend our readers to study Mr. Colin McKay's article in this issue on the use of the thermometer in locating fishing grounds. Mr. McKay, in addition to being an accomplished journalist, is a thorough seaman and navigator, born and educated in Shelburne, N.S. He is at present acting as an officer upon one of the Admiralty transports over in England. Another valuable article published in this number is that on herring fishing by drift nets by Mr. J. J. Cowie. Mr. Cowie is thoroughly familiar with his subject, and in addition to having personally fished for herring in the method described, is an expert on the curing and pickling of fish. Dr. Prince, whose article on experiments in the smoking of haddocks is published herewith, is one of the highest scientific authorities on fishery subjects in the world. He has investigated the fisheries all over Canada and conducted experiments upon them, and has also worked upon the fisheries of New Zealand and Australia. Articles from the pens of such men are worth reading and remembering, and we are glad to be able to give them to our readers.

FEBRUARY 29TH

A National Fish Day for Canada.

IMPROVEMENTS IN FISHING VESSELS.

We all acknowledge that the modern type of offshore fishing vessel employed in the Bank fisheries of the Atlantic is an able craft. As a sailing vessel, there is nothing afloat that can beat the semi-knockabout model for going to windward and general seaworthiness in a breeze. Jam them down on a lee shore in a winter howler; put the sail to them and they will haul off even though they clean the decks clear of dories and kids. Lying to in the biggest sea and wind that ever swept the Western Ocean, they will ride it out like a gull with his head under his wing. Under foresail and jumbo, foresail alone, and even bare poles, with the wheel down and lashed, they'll take anything that comes along butt-end first or otherwise, and the cook will be frying his doughnuts down for'ard and the gang can be in the cabin aft listening to the phonograph while the wind is tearing the sea up by the roots in a ninety-miler and the Devil himself is abroad looking for sailor's souls.

But in spite of all those good qualities, the Banking schooner engaged in fresh fishing out of our ports, is out of date. She is slow, ill-fitted for handling fish properly, and unsanitary for the crew. Modern requirements call for an absolutely new design.

In the first place she should be an auxiliary equipped with a powerful enough engine to drive her at from 7 to 10 knots in smooth water or at least 5 to 6 knots against wind and tide. The general lines of the McManus model could be retained with a little more fullness, since she will not depend upon sail alone. The bowsprit should be discarded and the plain knockabout or straight stem used. The rig could be without topmasts and light sails. The sail plan could be designed to carry just one large jib with a reef or bonnet in it; a larger foresail with two or three reefs, and a smaller mainsail. It should be possible to do away with the mainsail and boom and use a triangular sail on the mainmast similar to a riding sail. The long boom is in the way, and while fishing, the trysail mainsail could be triced up. On the mainmast, two short derrick booms could be rigged strong enough to hoist dories aboard and nest them on the quarter similar to the manner in vogue on the Pacific.

In the dories, the fish should be hove into a strong net placed on the dory bottom amidships. When coming alongside the vessel to discharge, the four cringles at each corner of the net could be hooked into the fall of one of the derricks on the mainmast and by means of an auxiliary gasolene or oil engine located in a small house on deck, the whole could be hoisted aboard, thus doing away with forking.

A compressed air pump worked off the engine could be arranged for working a hose to be used in dressing and cleaning the fish. The dressing down gang could use two or three of these hoses, with scraping knives lashed over the nozzles, in cleaning the gutted fish. The hose does away with the water tubs and the draw buckets.

An ice crusher, worked off the small engine located on deck, would save time and labour, and it does not take much room. Of course, if crushed ice were carried, as they do in the Pacific fisheries, the ice crusher would not be needed.

For hoisting sails, anchors, warping the vessel, hoisting dories and fish, loading stores and ice, the small engine on deck will be found invaluable. An engine of say, 8 to 10 h.p. would do this work admirably. When it came to a hard drag, all hands could tail on and help. Nets should be used for discharging the fish at the dock and much forking, which is bad for the fish, done away with.

The commander of the U. S. Hospital ship recommended that a bath-room and water-closet be installed on all deep-sea fishing craft. His recommendation was the subject of much humour at the time, but in spite of that, he struck the nail on the head. There is absolutely no reason in the world why a W.C. and a shower closet could not be installed, say in the after or fore-hold, on a fishing vessel. The fishermen would use the shower bath just as frequently as persons ashore would. They are a clean living and as respectable a crowd of men as one would wish to find anywhere—especially so in Canada, where "home town" gangs sail so much together. Modesty forbids us describing the W.C. in vogue at the present time, on deep-sea fishing craft, but there is no reason on earth why a proper one cannot be fitted. At present, crews on fishing schooners live in a semi-barbaric manner, totally different to the clean respectable homes they come from.

Briefly we recommend a straight or knockabout stemmed craft of about 100 to 120 tons, equipped with a powerful engine capable of developing from 5 to 10 knots in all sorts of weather. Sail plan consists of one jib, foresail and main-trysail—no topmasts. An 6 to 10 h.p. auxiliary hoisting engine located on deck; dories nested on the quarter instead of amidships and two derricks, starboard and port, to do the hoisting work. Hoses worked from compressed air developed by the main-engine—same air could operate fog horn and whistle. Electric or acetylene light should be installed and would be invaluable for night fishing. Nets to be used in handling fish; crushed ice for packing them procured from an ice crushing machine, and proper lavatory accommodation for the crew. Such a vessel would make quick trips and make things easier for the crew. Now then, boys, who'll ship?

WHAT'S IN A NAME? THE "PORTLAND" HADDIE.

In our last issue we took exception to the designation of our Fisheries Administration as "Naval Service Department." In this issue we have another kick to register regarding nomenclatures, and the kick is to be planted upon the retail fish trade.

Years ago, before our Atlantic fish producers woke up, and the Canadian Government Express subsidy came into effect, inland fish retailers imported their fresh and smoked fish from Portland, Maine. Haddock, fresh and smoked, were sold in Canada under the name "Portland Haddies," or "Portland Finnan Haddies," and the name became a sort of guarantee of good quality. That was back in the days when the Maritime Province producer didn't cater to the inland Canadian markets.

However, the "Downeasters" of our own Dominion eventually woke up and with railroad and governmental assistance made a bid for, and cut into the inland market supply trade—so much so, that in a few years the fish imports from Portland dwindled to practically nothing. Fresh and Finnan Haddies from Digby, Canso, Halifax, Lockeport, St. John and Chatham completely ousted the Portland fish from the Canadian market. During 1914-15 but 400 pounds of smoked haddock were imported into Canada, and but 295,550 pounds of fresh cod, haddock, hake and pollock—brought in to fulfill the demand when fish was scarce at our own ports.

In spite of this, a number of Canadian retailers, grocers, restaurants and hotels feature "Portland Haddies" and "Portland Finnan Haddies" regularly, when the fish they are selling never came from Portland. During 1914-5 only 400 pounds of Finnan Haddies came into Canada from foreign sources, yet the announcement is made in the places mentioned that the Finnan Haddie they supply is from Portland!

It is about time this name was dropped. In the first place it is not true, and in the second place the Portland haddie is not superior to our Canadian product. The Maritime Province smoked haddock has won a name for itself that will stand on its own merits as the yearly consumption will show. Why in the name of common sense should dealers persist in advertising these so-called Portland fish when the name "Nova Scotia Haddock" or "New Brunswick Haddock" is the more truthful, and just as good a guarantee of quality?

Digby, Nova Scotia, has been sending Finnan Haddies to Portland for consumption in that city for some time past, and a recent paragraph in the "Fishing Gazette" reads as follows:—

> Nova Scotia has turned the tables on the Maine trade in finnan haddies, and Digby firms are reported as handling nearly all the trade in that line which formerly was done by Portland. Only a few years ago the latter city handled practically the entire output of the finnan haddie trade. The shipments are going to many other American centres, even as far as the Middle West. In one day last week fish shipments from Digby amounted to 22,140 pounds, of which 19,110 were finnan haddies.

We have said enough on this matter. The day of the Portland fish is past, and the dealer who advertises same is practising a deception and discrimination against a home product.

WANTED! A GOOD NOSE!

The above is not the caption of an advertisement for a war victim or one who has had the misfortune to lose his proboscis through accident or otherwise, but it is a qualification which is absolutely essential in the gentlemen who act as Pure Food Inspectors.

Some time ago one of our large wholesalers had a barrel of mackerel condemned by one of these officials, and knowing that the fish were absolutely fresh, the wholesaler went to the trouble of personally examining the goods. He found them untainted in any way, and took the matter up with the Department who employed the Inspector. The latter, in his defence against convincing evidence, stated "that he had a cold and couldn't smell very well, but he thought the fish were bad!" The goods were released and sold at the best market price.

The fish trade suffers a great deal through olfactory deficiencies in both inspectors and customers. Fresh fish are not high scented, but the boxes and barrels in which they are contained often are. It cannot be helped. The slime and water from the ice packing permeates the packages and exposure to the air causes the familiar fishy odor to arise. But it should be remembered that in nine cases out of ten it is the package that smells—not the fish itself, and many persons are prone to condemn the contents because of the scent of the box, barrel and even the general surroundings.

Food Inspectors should be examined regularly in their sense of smell. The fish trade have been put to a great deal of trouble and expense through the lack of olfactory discrimination in the men who examine foodstuffs. If their sense of smell is poorly developed, they have no right to hold their positions.

Everything that is highly scented is not necessarily unfit for food. Onions, garlic, Limburger, Gorgonzola, Oka and other cheese are odoriferous, and are not condemned on smell. The Englishman prefers his partridge and pheasant when it is "gamey," and the Chinaman relishes his eggs when they cannot be approached by a person with Occidental tastes. If fish is to be condemned as unfit for food, the test should be made bacteriologically or by a person whose sense of smell is acute.

AMERICAN CANNED GOODS IN—CANADIAN PRODUCTS OUT!

The Montreal Star publishes the following cable despatch on January 14th:

The steps the Canadian Government has taken for a larger proportion of Canadian food supplies will be warmly welcomed by Canadians at the front.

A private in the 5th Battalion, writing from the trenches, says:

"Everything is fairly quiet along our lines. It seems queer that at all our battalion canteens we can only buy Yankee canned tomatoes, salmon, peaches and all the other various fruits and vegetables that Canada excels in. It riles all of us out here a great deal."

We imagine it will rile the Canadian canners a great deal more. British Columbia sent a free gift of 23,000 cases of canned salmon to the Imperial Government; prominent B. C. fish men contributed machine guns, and have supported the Red Cross and Patriotic Funds generously, and the Province has sent many regiments of the best fighting men that ever came out of the West to fight the Empire's battles. In return, B. C. salmon has been passed up by the Imperial Government in favour of Alaska salmon packed by San Francisco firms. We have a right to howl at such base ingratitude!

PISCATORIAL PARAGRAPHS.

The Germans are economizing these days by mixing chopped beef with dried codfish. It is said that they treat the codfish in such a manner that it loses its fishy taste. It seems to us that by taking the fishy taste out of the codfish they are eliminating the fish altogether and they might as well use wood pulp. Well, well, the British Navy will be the indirect means of teaching us numerous ways in which fish can be used by Teuton inventiveness.

It is reported that the British Naval Patrol rounded up a fleet of sixty-seven German trawlers in the North Sea and brought them in. Some months ago, a British patrol pounced upon two or three adventurous German fishing craft on the Dogger Bank, and after searching them allowed them to go with their catch. A while later, several others were caught and searched and allowed to go on. No doubt this magnanimous treatment impressed the Hun, with the result that he told his friends back in port that the crazy "Englisch" were not troubling fishermen. The Hun fishing fleet came out in full force with a vision of high prices urging them, and when they least expected it, the whole craft were gathered in. We can see the smile on the faces of the Grimsby fishermen, who suffered so much at the hands of German submarines, when this fleet came in.

Our worthy American contemporary the "Fishing Gazette" thinks that we do not commend the enterprise of the American canners who cut in and supplied Alaskan salmon to the British Army. In that they are mistaken, for last October we said: "We do not deplore the business acumen of the American packer who managed to unload this stuff on to the British Government for soldier's rations. It was a mighty good stroke of business for him, but an unpatriotic piece of work on the part of the Imperial Government Department entrusted with the purchase of supplies for the troops when one considers what tthe British Columbia fish men and the Province have contributed in the shape of salmon, guns, and men." The above was written when a soldier correspondent—a former fish man—drew our attention to the "Alaska Red" which was being supplied to the troops in England. This was packed by an American concern in Bristol Bay, and in our correspondent's opinion, it looked more like Humpback or Dog Salmon than the "Fancy Alaska Red Salmon" the can was labelled to contain. Don't worry, brother, we know that the American fish men are alive and on to their jobs, and we give them all due credit for being smart and progressive.

Lent begins on Ash Wednesday, March 8th, and ends on Easter Sunday, April 23rd. There are sixteen fish days during that period. At present, business is brisk, though supplies are scarce in certain lines.

Mr. S. Y. Wilson, of Halifax; Mr. H. B. Short, of Digby; Mr. W. F. Leonard, of St. John, N.B.; Mr. Emile Lapointe, of Ottawa, and Major Hugh A. Green, of Saskatoon, were in Montreal recently.

The CANADIAN FISHERMAN acknowledges receipt of handsome calendars from the following firms: London and Petrolia Barrel Company, Ltd., who manufacture hardwood barrels for the fish trade; Messrs. D. Hatton Company, Montreal, Messrs. Leonard Bros., Montreal, Messrs. Connors Bros., Black's Harbour, N.B.—all well known Canadian fish producers and distributors.

Mr. A. Handfield Whitman, of Halifax, in a recent article in the Halifax Chronicle, states: "That the fishing industry of the Atlantic Coast of Canada was never in a more prosperous condition. There has been a good demand throughout the year for all grades of fish stuffs; good prices have been paid the fishermen and the merchants have made a fair margin of profit." The same might be applied in general to all the fisheries of Canada—the lobster pack, which was likely to feel the War most, coming out very satisfactorily. Prospects in all lines for 1916 were never better.

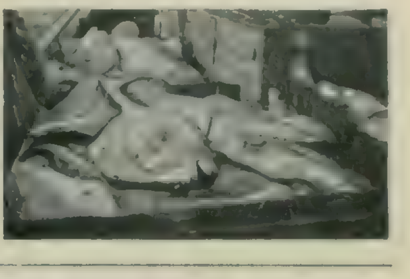
Apropos of the U. S. Report on the Otter Trawl Fishery published some time ago, the Gloucester Times summarizes a reference to the same which appears in the latest Commissioner of Fisheries' Report.

> The findings of the committee as to the effect of otter trawling are necessarily inconclusive because of the short time that has elapsed since the establishment of the fishery and because of the small number of vessels engaged. The vital consideration being the safeguarding of the food-fish supply of coming generations rather than the immediate and demonstrable effects on that supply of particular kinds of apparatus or methods, the committee believe that the otter-trawl fishery should be kept under careful observation and should be so regulated as to obviate in American waters the conditions that have arisen in the North Sea from an excessive use of otter trawls.

NOVA SCOTIA BRANCH CANADIAN FISHERIES ASSOCIATION MEETING.

The Annual Meeting of the Nova Scotia Branch Canadian Fisheries' Association takes place at Lunenburg, Wednesday, Jan. 26, 1916. All those interested in the fishing industry of the Province are invited to attend.

Finding Fish by Water Temperature



By COLIN McKAY.

Among British and Norwegian fishermen considerable importance is attached to the employment of deep-sea thermometers as a means of determining the presence of fish. Observation and experience have demonstrated that the movements of fish are determined to some extent by the temperature of the water at the depths where they usually live. Students of oceanography are rather inclined to dissent from the idea that the temperature of the water directly influences the movements of cod or herring; but they rerecognize that the temperature at certain depths has a direct influence upon the lower organisms, which nourish these fish. When and where the temperature is favorable to the growth of plankton, for instance, cod are usually found in abundance; and this temperature depends on the movement of ocean currents. It is well known that cod and capelin disappear from a large part of the Banks of Newfoundland in the month of September. Usually in this month the current of the Gulf Stream undergoes a change of direction; and it is reasonable to conclude that the cod are obliged to seek regions where the temperature is better adapted to the growth of their particular kind of nourishment.

Probably a majority of Canadian fishermen carry on the quest for cod by hazard, as it were; at any rate, they don't make much use of deep sea thermometers. They fish in places where in previous years they have found cod abundant at certain seasons. No doubt the movements of ocean currents, which mainly determine submarine temperatures follow broad seasonal laws; that there are often variations from normal conditions, and these, so far as they affect the temperature of the water, it is of importance to know. While there is a good deal to be learnt about the influence of water temperatures on the movements and habits of fish, observations of students of oceanography and the practical experience of European fishermen have shown that the fishermen, by employing a submarine thermometer may at any rate avoid a considerable waste of energy and loss of time.

The French fishermen who go to Iceland and the Banks of Newfoundland have found that cod appear to prefer to live in depths where the temperature is from 6 to 8 degrees Centigrade, or from 43 to 48 degrees Fahrenheit. Numerous observations made around the Lofoten Islands show that cod is always abundant in depths of from 25 to 50 fathoms, when the temperature is from 4 to 6 degrees Centigrade, or from 39 to 43 degrees Fahrenheit.. It is claimed that around these Islands "winter cod" always keep to depths, or strata of water, where the temperature is 4 degrees Centigrade, or 39 degrees Fahrenheit, and that by employing a thermometer their position can be determined immediately. Oceanographers state that the water on the bottom in these regions, coming from the Arctic, is in winter of a temperature of 1 or 2 degrees Centigrade. That is near freezing point; while the water on top, coming from the warmer regions of the Atlantic by the Norwegian current, are of higher temperature. This meeting of ocean currents produces different temperatures at different depths, and the cod keep to the intermediate stratas or layers of water, where there is the greatest abundance of plankton.

Movements of ocean currents, mingling plankton of the polar and tropical species, and producing temperatures favorable to their development, evidently have an important influence upon the fisheries. The Grand Banks, always famous for their abundance of fish, are the meeting ground of three ocean currents, and equally the fishing grounds at Iceland. Faroe, Dogger Bank, and off Norway are on the line of contact of polar currents, with the warm waters of the Atlantic; a line on which at verying depths observation has shown the existence of plankton in much greater abundance than in waters where the temperature does not represent the mingling of two or more currents.

Any pronounced modification of ocean currents produces changes in the distribution of fish. In 1902-1903 the Gulf Stream was considerably weakened, and the European current reduced in volume. The Polar currents penetrated into European waters, diminishing their salinity as well as reducing their temperature. Grave disturbances in the life of the fish resulted. On the coast of Norway cod were exceedingly scarce, and the few fish caught appeared to be suffering from some malady. Old fishermen never remembered taking cod in so poor a condition, or with their ovaries so reduced. In the North Sea most varieties of fish were very scarce, and their condition was poor. Many more icebergs than usual drifted down to the coasts of Norway; whales and seals quit their usual haunts and appeared off the Shetland Islands, and even off the coasts of Denmark, millions of polar birds visited the North Sea and neighboring coasts.

It is true that the studies of the oceanographers in this direction have not facilitated the prosecution of the fisheries to the extent that was previously hoped; but this is not difficult to explain. Observations and experiments have been of an isolated character; no adequate system has been developed to co-ordinate the practical experience of fishermen; and the fishermen have been rather slow to realize the value of a better knowledge of submarine temperatures. What is wanted, as I pointed out in "The Canadian Fisherman" some time ago, is a system, analagous to that of the weather bureaus, whereby the Fisheries Department, would receive reports from fishing vessels, showing the submarine temperatures and states of the fishing; reports which would be gradually co-ordinated and embodied in charts which would be as useful to fishermen as the meteorological charts are to sailors.

DON'T FORGET TO ATTEND THE ANNUAL CONVENTION AND BANQUET OF THE CANADIAN FISHERIES ASSOCIATION AT MONTREAL. : : : : : : : : : :

DRIFT NET FISHING FOR HERRING

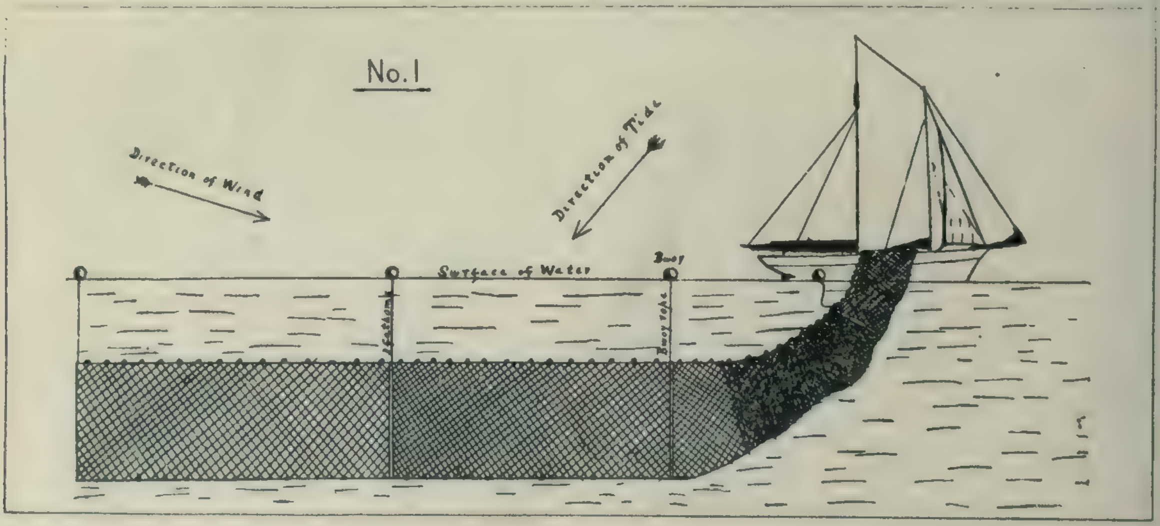
An important article by a competent authority.

By J. J. COWIE

In view of the preparations that are being made by many of our fish merchants for curing herring in the Scottish method next season, and of the greatly increased demand that will thereby arise the publication of an article at this time dealing with the question of increasing the supply would seem to be opportune.

Many European authorities of an earlier day have held the opinion that herring annualy descend from the Arctic circle in masses, dividing into smaller schools, and distributing themselves over well known haunts near the shore.

In the light of the knowledge gained by the enormous development of the Dutch, Norwegian, British and French herring fisheries, and by the prosecution of these fisheries at times and places not dreamed of by those early writers, the theory of the great descent from the north is now looked upon by scientists and others as erroneous, and in its place is accepted what is doubtless the true one namely: that herrings inhabit the seas adjacent to the coasts and bays where they resort for spawning purposes, and that after spawning they move back to the deep water in the neighbourhood, where they remain feeding until the spawning season again approaches.


No. 1

That this opinion is the most rational one is evidenced by the fact that on the British coasts, for example, herrings of a particular size and quality resort to the same locality every year.

The summer herrings caught in the vicinity of the Shetland Islands are of a much larger class than those caught further south, in the Moray Firth and off the Aberdeenshire coast; which in turn are usually larger than those caught off the coast of Berwickshire in the extreme south of Scotland. Again, the herrings taken off Yarmouth, on the east coast of England, are somewhat smaller and have a tougher skin than those caught off the east coast of Scotland.

On the coast of France it has been found that a distinct difference exists between the herrings caught near Calais, and those that are caught near Dieppe—places within a short distance of each other—the bodies of the former being longer and more compressed on the sides than those of the latter which are rounder and shorter.

Herrings swarm regularly into most of the sea lochs of the western highlands of Scotland, but the size and quality of those in one loch are often altogether different from those in another.

Although the movements and life history of the herrings frequenting the waters of Canada have not been studied and marked to the same extent as those of their kind in European waters, there can be no doubt that an equal difference in size and quality on different parts of the coast exists here.

There are two well defined movements of herrings towards the shore in Canada as in northern Europe; one in winter and another in summer, the former school spawning in spring and the other in autumn.

There is however one familiar and striking difference in the movements of the two schools on the coasts of Canada.

With the exception of the fjords on the Norwegian coast, there is perhaps nowhere else such vase masses of herring move so close in to shore as around the shores of Canada, particularly the Gulf of St. Lawrence in the spring of each year, and while this school is being literally washed on to the beaches trap nets, fixed gill nets, and other stationary implements easily retain large quantities.

The main body of the summer school on the other hand as is well known to every fisherman, does not come close inshore in such large quantities even at the spawning season, and fixed nets, and the ordinary means of capture used in the spring are therefore not so effective, consequently the quantity taken throughout the summer and fall is comparatively small. Indeed the summer fishery is frequently almost a failure owing to the schools not coming in contact with the fixed fishing gear.

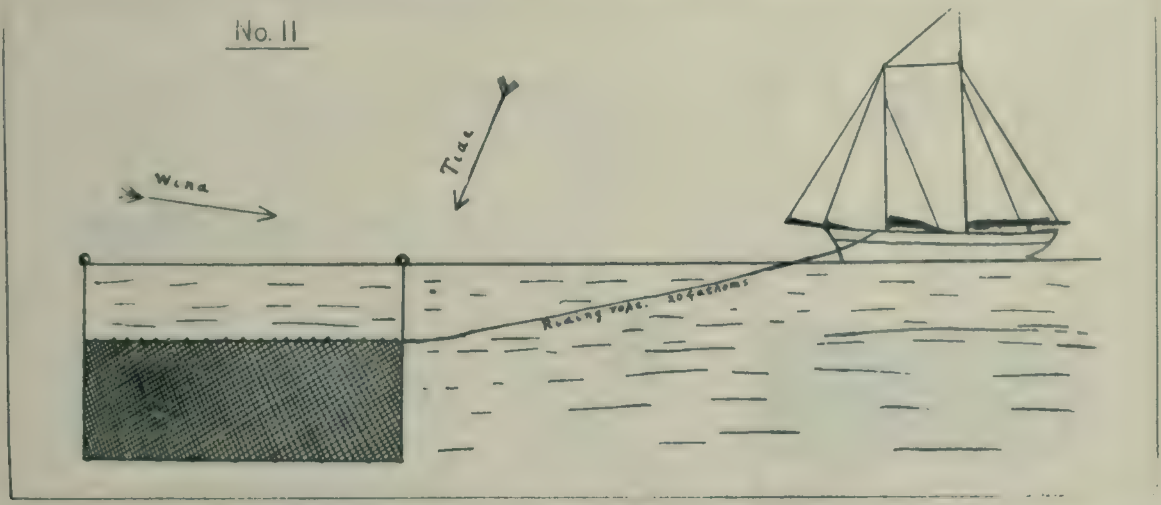
In the past reports such as the following occasionally reached the department from the southern shore of Nova Scotia and other places.

> "Herring and mackerel were plentiful outside but did not come into the harbours, consequently boat fishing was a failure."
>
> "Herring did not enter the harbour as usual, and as a result the fishery was a failure."

Reports similar to the foregoing come to hand still from various sections of the coast.

This surely is a serious and deplorable state of uncertainty that is allowed to hamper an important industry. Were it otherwise, not only would a sure and plentiful supply of fresh bait be secured when most needed, but a greater quantity of this unsurpassed quality of summer herring would be packed for consumption as food, and the wealth produced from our seas, materially increased.

Seeing therefore that the "mountain does not come to Mahomet, Mahomet must move out to the mountain." In other words the habitat of the summer school must be sought for ten, twenty or thirty miles out in the deep water.



This applies to the Pacific as well as to the Atlantic coast. The important herring fishery at Nanaimo, B.C. is comparatively small some seasons because the big schools do not enter the harbour as usual, but keep swarming outside in the Gulf of Georgia.

Keeping in mind the enormous size of the spring schools there cannot be any possible doubt that great bodies of herring are hovering offshore every summer undergoing the fattening process already referred to.

With particular reference to the Gulf of St. Lawrence if any doubt exists on this point it may be dispelled by a glance at the record of catches made by the herring drifter *Thirty-three* in various parts of the gulf, during the months from May to September, 1907, which is here given.

With Souris, P.E.I., as a base the following catches were obtained from six to ten miles off the coast between that port and Georgetown:—

May 16	21 barrels
May 18	36 barrels
May 21	38 barrels
May 22	10 barrels
May 23	4 barrels
May 24	38 barrels
May 25	18 barrels
May 28	15 barrels
June 1	35 barrels
June 4	30 barrels
June 5	40 barrels
June 6	54 barrels

These were all spring herrings, but it is remarkable that so late as June 6 they were still found quite abundant by the drifter, long after the fixed nets at the shore had ceased to take any. The operations of the drifter were stopped on that date in order to make a change of base, and not because of any scarcity of herrings.

With Grindstone, Magdalen Islands, as a base the following catches of fat herring were made:—

July 6—30 miles east	8 barrels
July 9—16 miles southeast	12 barrels
July 11—17 miles southeast	5 barrels
July 12— 8 miles south	28 barrels
July 13—16 miles south	25 barrels
July 16—18 miles south	32 barrels
July 17—16 miles south	28 barrels
July 18—16 miles south	52 barrels
July 19—15 miles south	68 barrels
July 20—15 miles south	15 barrels

Again operations were stopped to make a change of base, and not because of a scarcity of herrings.

With Grand River, on the Gaspe coast as the base, the following catches were made at the mouth of the Bay of Chaleur:

August 16	2 barrels
August 17	8 barrels
August 20	10 barrels
August 21	33 barrels
August 22	40 barrels
August 27	27 barrels
August 28	13 barrels
August 29	11 barrels
August 30	43 barrels
September 5	3 barrels
September 7	2 barrels
September 12	20 barrels

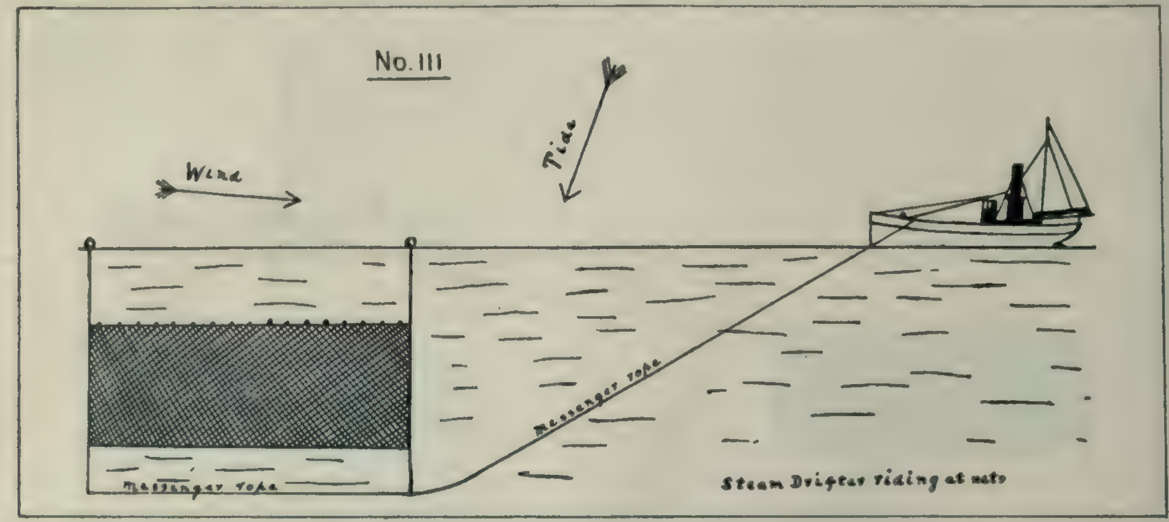
When the fact that one lone boat letting out nets at random in such a wide sea as the gulf and meeting with considerable success on each occasion is taken fully into consideration the foregoing record must appeal to all thinking fishermen as a rather remarkable one, and should lead them to the conclusion that summer herring in large schools are simply hovering in the offing.

In order, therefore, to take advantage of the presence of these offshore schools, and to solve forever the serious question of the bait supply, it becomes absolutely necessary that our fishermen should direct their thoughts to the plan which for centuries has been found so effective for deep sea herring fishing by the fishermen of Norway, Holland, France and Great Britain, namely that of drift net fishing.

For the benefit of those of our fishermen who may not be familiar with the method it may be well to describe it, and to suggest how it can be carried on in Canadian fishing boats.

The term drift net partially explains the method. The nets are neither anchored nor towed, but are strung out usually across the tide at any distance from the land, where signs of fish are apparent to the experienced fishermen, and the vessel and nets allowed to drift or move with the tide.

Any ordinary Canadian fishing schooner of 10, 15 or 20 tons, with a good big main hatch can be readily converted into a drifter to carry from 20 to 30 nets. If fitted with a gasoline with a gasoline engine so much the better in order to make speed to the land, for the disposal of the fresh catches.



To prepare ordinary Canadian herring nets for drifting as in sketch No. 1, they should be mounted with a much stronger head or cork rope than that presently used.

The ends of the nets should be made fast to each other, at the top and bottom, so as to form a continuous string of netting. Where each net is joined to the other, at the top, there should be made fast a rope of about 2 fathoms length, at the end of which should be attached a buoy, or small cask of sufficient buoyancy to remain above water when the nets are set.

Along the foot rope should be strung the usual amount of lead or other sinkers.

The fisherman must use his own judgment as to the most suitable size of mesh to be used. There are times when a fleet of small meshed nets would pay him best, while at other times nets of a large mesh would be most profitable to him. A 2½ inch mesh is, in my opinion, the best size for a heaving drift-net.

Before proceeding to sea the fleet of nets so strung together should be carefully laid in the hold, or some sort of temporary platform, one net after the other, with the head rope aft and the foot rope forward.

The setting or "shooting" of a fleet of drift nets, although a simple operation in itself, requires a great deal of judgment and care.

On reaching the desired spot for fishing, which must be well clear of vessels at anchor, and of sufficient depth to prevent the foot rope of the nets from catching the bottom, and assuming that the tide runs east and west, with the wind, say, from a southerly direction, the vessel, with just enough sail set to give steering way, would head away in a northerly direction, while the nets are paid out over the side as shown in sketch No. 1.

When the nets are all out the sail is taken in, and the vessel swung round bow on to the fleet. One end of a strong manila rope is made fast to the last net, and the other end to the vessel, as shown in sketch No. 2.

This rope should be let out to a length of about 20 fathoms.

British fishermen today mount their fleets of drift nets somewhat differently from the foregoing largely because of the great length of the train of nets used by them, and the consequent heavy strain upon the gear.

The difference consists in their making use of a manila rope, called a messenger, as a hauling-in warp of about 4 inches circumference, which runs along the whole length of the fleet, and is attached to the foot rope by short lengths of rope where each net is joined to the other.

No sinkers are used on these nets. The messenger serves as such.

Sketch No. 3 shows a British steam drifter riding at her nets with the messenger in use.

The former plan, however, being simpler, less expensive and quite as effective for fishing purposes is here recommended for use on the class of Canadian schooners previously mentioned.

Drift nets should be set at sunset and hauled in at daybreak as a general rule; thus, in the course of the five or six intervening hours the vessel and nets will have moved with the tide over a considerable stretch of water, which obviously must give the nets a much better chance of striking a body of fish than if they were anchored to one spot the whole night through.

The herrings are sometimes astir at the close of evening, and at other times about dawn, and in such cases the fisherman has to rely on his own judgment as to when he should begin hauling in his nets.

The nets should not be allowed to remain in the water during the daytime.

This is an objectionable practice because the herring, being a very timid fish, is apt to be thereby scared from the vicinity.

The operation of hauling in the nets should be performed on the weather, or windward side of the vessel. The wisdom of this course is plain, for otherwise the tendency of the vessel would be to drive over its own nets. During the hauling in process the herrings should be shaken clean out of the nets.

Although as a rule the length of the buoy ropes, or in other words, the distance between the top of the nets and the surface of the water is about 2 fathoms, experience has taught drift net fishermen that depth at which herrings swim, especially in clear northern waters, varies with the lightness and darkness of the night, and with the coldness and warmth of the atmosphere. In dark nights, or when the weather is mild they swim well up towards the surface, in such circumstance the buoy rope is shortened; while in moonlight nights, or when the weather is cold the buoy rope is lengthened and the nets let well down from the surface.

Practical fishermen do not require to be reminded of the fact that herring fishing in any form is a more or less uncertain business, and anything calculated to minimize, this uncertainty is bound to appeal to them.

Now, while drift net fishermen have no definite guide in locating bodies of herrings other than the appearance of whales and gannets, and the knowledge that certain fishing grounds were found prolific on some previous occasion; and although at times a whole night is spent toiling for nothing, it cannot be doubted, with respect to summer and fall schools, that the success of our Canadian fisherman would be much more certain if, instead of laying immovable traps, and setting fixed nets close to the shore with the hope that the course of the great armies of herrings may be deflected towards them, they carried the war right into the natural domain of the finny tribe by means of movable drift nets. Such reports as those quoted, that herring schooled outside the harbour and were consequently beyond the reach of fishermen's nets, would then cease to come to hand.

It is most sincerely to be desired, therefore, that those of our fishermen, especially those who devote a considerable portion of their time to herring fishing during the summer and fall months, will give this matter of making use of drift nets their full and careful consideration, and that what is said herein may be the means of inducing them to make faithful and persistent efforts to establish a deep sea herring fishery in order to more fully and surely reap the rich summer herring harvest of our Canadian seas.

CANADA'S ONLY FISH TRADE CONVENTION WILL BE HELD IN MONTREAL ON JANUARY THIRTY-FIRST. THE PROGRESSIVE FISH MEN WILL BE THERE AND MANY MATTERS OF IMPORTANCE TO THE TRADE WILL BE DISCUSSED. :: :: :: ::

AN OLD FISHING PROCLAMATION.

An old Highland fishing proclamation was read by the Rev. Percy Coats at a meeting of the Lune Fishery Board at Lancaster. According to the reverend gentleman's version, the proclamation read as follows: "This shall be a proclamation of Her Grace the Duke of Argyll: If any man be found fishing in the loch, on the loch, aroond the loch, through the loch, afoor the loch, or hinder the loch his neck shall be broken in twelve places, and if he shall hereafter offend he shall be parsecuted wi' far war' parsecution, for he shall be burned and hanged. By all the laws of the Courts of Scotland and Her Grace the Duke of Argyle."

WINTER FISHING ON SASKATCHEWAN LAKES TO SOON COMMENCE.

About seventy-five people and forty teams will be employed in fishing operations by one party alone on the lakes of the north country during the winter season. Preliminary estimates are for the taking out of from twenty to twenty-five cars of fish. M. B. Olsen, of Big River, came down from the north to Prince Albert last week and made final arrangements for the opening of the fishing season. Operations will be carried on on Dore, Smooth Stane and La Plonge lakes, the two latter of which will be fished for the first time.

It is stated that the demand for northern fish on the domestic market has been increasing during the past couple of years. Some of the fish will also be shipped to the American market. A number of teams are being brought north from the prairies for the purpose of hauling fish from these lakes to the nearest railway.

DEEP SEA FISHES.

Some That Get Along With Only One Meal or So a Year.

There are more than 50,000,000 square miles covered by a depth of three miles of sea, but even at this great depth—where the pressure of the water above would instantly crush a man's body to pulp—there is a great world of life.

Many of the fish and other creatures of the deep are blind.

They are however, able to see by means of the lights which they carry themselves.

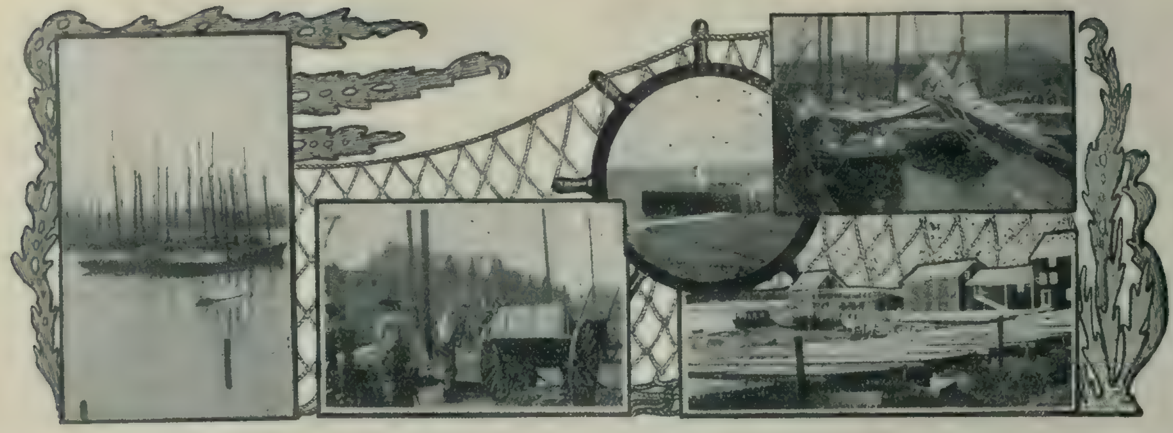
The "lamps" are little organs dotted over the body, and with the light from them, which is made in much the same marvellous way as the glow worm's, they can use their bulging eyes to see what is going on about them.

But even with the ready made lighting apparatus and telescope eyes it is a difficult business finding a dinner, so the fish have jaws with an enormous gape and a stomach so elastic that they can accommodate a larger fish than these voracious eaters themselves.

When they have made such a capture they retire for something like a year's meditation to digest the meal, two or three of which are sufficient to last an average lifetime.—London Answers.

THE WONDERFUL SWORDFISH.

So powerful is the jaw of the swordfish that it has been known, in attacking vessels, to pierce through copper sheeting and oak planks to a depth of ten inches.



Good and Bad Smoked Haddock

Results of Scientific and Practical Studies in 1915.

By Professor Edward E. Prince, L.L.D., D.Sc., etc., Dominion Commissioners of Fisheries, Ottawa.

Everybody knows, or has heard of the famous finnan haddies of Scotland, the delicate salted and smoked haddocks first prepared at Findon, Aberdeenshire, and hence styled "Finnans," or "Findons," by most people. It is claimed by epicures that the best qualities of these fish are still those which are produced in the North of Scotland, but it cannot be denied that in England, and in recent years in Canada, finnan haddies, of great excellence, have been produced and placed on the market. From Digby, Canso, and Halifax, fish have been shipped which will compare well with the original Scottish product; but it must also be admitted that in former years the quality was inferior, and the appearance and flavour not appetizing.

Scientific Fish-Curing Tests Commenced.

Last year the Biological Board of Canada, of which I have the honour to be chairman, carried on some vigorous tests and experiments at the Government Marine Station, St. Andrews, N.B., with a view to determining the condition essential for the production of the very best finnan haddies.

The Board has been aware of the strong desire of the Minister of Naval Service and Fisheries, the Hon. J. D. Hazen, to secure the most important benefits to the fishing industry from technical research. Such research has proved of inestimable value in other countries, but hitherto the extended researches necessary were not possible, as the Biological Board were hampered by limited funds. The ampler appropriation now provided by the Hon. Mr. Hazen, has enabled the Board to undertake new and important technical investigations.

Miss Gair Patterson, M.A., an accomplished Biochemist of Toronto University, was selected by Professor Macallum, F.R.S., Secretary Treasurer of the Board, to undertake the study of the "Smoked Fish Problem," and Principal Harrison, D.Sc., Head of Macdonald College, Ste. Anne de Bellevue, consented to carry out the bacteriological researches involved. The zealous and successful labours of Miss Patterson have already yielded results of such a striking nature that some notice of them seems justifiable, although the complete researches cannot be published for some time.

Practical Experiments in Curing, 1915.

During the last six months several series of finnan haddie samples have been put up under directions given by Miss Patterson at the special smoke-house built and equipped in connection with the scientific station at St. Andrews. Two of the Board's officers (Messrs. Calder and Cross), have been busy week after week during the past few months, preparing the fish and shipping them to various experts qualified to express an opinion on cured fish products. Some of the typical samples, so submitted, have been pronounced superior to any smoked haddocks yet produced in Canada. "I thought they were delicious, and so like the sweet finnan haddies we used to get on the East Coast of Scotland at home," said one of the judges, and a very critical authority said, "I found the fish excellent"; indeed, with few exceptions, the six or seven hundred specimens submitted for critical opinion, amongst probably over one hundred persons, established the conclusion that they were of a superior and most appetizing character.

Improvement in Canadian Finnan Haddies.

In recent years the enterprise of certain fish firms at Digby and at Canso, Halifax, etc., has built up a large finnan haddie business in Canada. Fifteen or twenty years ago it was a very limited industry, and the boxes of fish sent to the market were crude, unattractive and rough in appearance, and contained 30 to 50 lbs, of fish. Now, the box is smaller, contains 15 lbs., as a rule, is planed, stamped on the outside in two or three colours, and so neat in appearance as to vie with the most attractive packages in grocery stores. Indeed, the demand for these cured fish put up in attractive form exceeds the supply.

Detailed Official Report in Preparation.

It is most opportune, therefore, that science should come to the aid of a growing industry such as this, and furnish reliable data for ensuring the best quality of article for the table, and explain to practical men the conditions for securing uniformity and excellence and the reasons for the superiority or inferiority of cured fish placed on the market.

A preliminary report by Miss Patterson will be published shortly, and a full detailed account will be completed later, so that fish-curers, fishermen, fish dealers and others interested, may have the full benefit of the valuable technical investigations carried on by the Biological Board upon this subject.

A summary of some of the results achieved, may prove of interest at this stage, and I venture to preface these results by some remarks on the character of fish muscles, tissues, etc., especially in regard to preservation or deterioration as food products. Some points here stated, it may be added, and some of the conclusions drawn, may require revision, but it will suffice to present some of the more important points elucidated up to the present.

Why the Muscles of Fish Quickly Deteriorate.

The muscles of fish are pale and differ from the red muscle of beef or mutton in the details of minute structures, and also in the small amount of blood, diminished red colouring-matter, (i.e., haemoglobin), and in the greater amount of contained water. Fish are poorer in extractives and amido-bodies, (creatin, xanthin, etc.), which, it may be pointed out, are the stimulating elements in beef tea. The fats in fish are far less than in fresh meat, but the inorganic salts are greatly in excess, the phosphate salts being 75 to 100 per cent more than in beef.

For these reasons, and especially on account of the looser texture of the muscle fibres, which are not bound up in strong bundles by fibrous sheaths or fasciae, fish are readily attacked by bacteria, and decomposition more readily sets in. Hence fish more rapidly undergo putrefaction.

Bacteria Absent from Fresh Fish.

Authorities have differed as to the presence of bacteria in healthy fish, and recent researches support the opinion that such micro-organisms are not present in the fresh healthy muscles of fish, or in the blood, or in the fresh periteoneal fluids in the abdomen. It is true that putrefaction, due to bacteria, is usually first observed in the abdominal region, but that is due to intestinal fermentation, which it is believed, effects post-mortem digestion, followed by the appearance of putrefactive bacteria. Such fermentation or digestion, succeeded by decay, is most rapid in fish that have fed just before capture. It is well known that herring and mackerel, whose stomachs are packed with food, "heat" readily and so rapidly putrefy that the under part of the fish may become black, soft, and may even drop away in a very short time. The intestinal canal may gradually dissolve away; but, even when this does not take place, the intestinal juices, and bacteria, pass through the walls of the canal into the abdominal cavity,and pollute the whole body of the fish. Removal of the stomach and intestines with other organs, will prevent this auto-digestion, and in cold weather gutted fish will keep fresh two or three days longer.

Blood Under Backbone a Cause of Decay.

One striking feature in the process of deterioration is the discolouration beneath the backbone. On the second or third day a reddish brown colour penetrates the adjoining muscle and tissues, due to the haemoglobin set free by bacteria, which break up the red blood cells of the arteries and veins beneath the vertebral column. This discolouration has been attributed, at times, to the decay of the kidney, which extends from the shoulder to the tail in fishes, and this may be so, but bacteria have been detected in the muscles as far as the reddish brown stain extends, often from a quarter to half an inch in depth.

Hooked Fish Keep Best.

Forty-eight hours after capture in the fish caught with baited hooks, the stain is little more than a thin, red area; at sixty hours it is from one-eighth to a quarter of an inch in diameter, and in 72 hours it has extended still further, to as much as half an inch. Fish caught by steam-trawling show this stain much more rapidly. Indeed, in many respects fish caught by gill-nets, or lines of baited hooks, are superior to fish which are caught by beam-trawl or otter-trawl. It appears that in keeping qualities, and in other respects, the trawled fish are inferior, no doubt owing to the rough usage, and the great pressure, to which they are subjected after capture.

Changes in Fish After Death.

When a living fish is taken out of the water it kicks vigorously, erects its fins, gasps convulsively, and in a short time, 15 to 30 minutes, it becomes motionless. The muscles still possess what physiologists term "irritability," which may continue for several hours, in some fish lasting from ten to fifteen hours. In such fish as the salmon it lasts longer than in cod or haddock, owing to the smaller amount of contained water in the muscles of the former. The "irritability" of the muscles is shown by movements exhibited when the fish is excited electrically, or stimulated chemically by acids, alkaline solutions, etc.; but finally stiffening, or rigor mortis occurs, as a result of coagulation of the "Myosinogens" of the muscle-fluids or muscle-plasma. Before rigor mortis sets in, the muscles are chemicaly neutral or alkaline, but after the change has taken place, they are markedly acid, and as the stiffening passes off, they become neutral again, but, immediately decay sets in, they become strongly alkaline, as is proved by litmus-paper tests. Heat and the application of acids, produce similar forms of stiffening. The muscles, after a time (ten to forty-eight or sixty hours), become soft and limp again, and this change is hastened if the fish has been roughly handled, or in an exhausted condition when caught, or not gutted, or not kept at a low temperature, say, from 32 F. to 25 F. Low temperature prevents the decay caused by micro-organisms, and the freshness of the tissues is retained, though when thawed out, the fish may be soft and limp, and is much more liable to putrefaction afterwards. Rigor mortis, or stiffening, disappears with the intrusion of bacteria, although the intestinal ferments, passing through the walls of the intestines, may aid, and pepsin-digestion, even though limited, materially assists.

Fish Quickly Gutted Keep Best.

It is interesting to note that fish gutted immediately after capture and kept cool do not decompose as soon as ungutted fish, after removal from ice. As already stated the peritoneal fluid in the abdomen is normally sterile, and during life the organs, bathed

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FROM EAST AND WEST THE FISH MEN OF CANADA WILL BE IN MONTREAL ON JANUARY THIRTY-FIRST. IF YOU ARE IN THE TRADE, COME ALONG! THE ASSOCIATION WILL BE GLAD TO SEE YOU WHETHER YOU ARE A MEMBER OR NOT. :: :: :: ::

in this fluid, are protected against bacteria, but after death bacteria are found in the fluid, having passed through the walls of the intestine (or the walls themselves may have been dissolved, and thus the bacteria are able to reach the muscular tissues of the abdomen. Indeed, in thirty-six hours or less, the abdominal walls may be seriously affected.

Scottish Mode of Preparing Haddies.

In the preparation of finnan haddies, in Scotland, fresh fish are used. They are gutted, the head removed, and the fish split down the back. An extra cut behind the backbone, on the right hand side, is always made, exposing the thick muscles of the back, and facilitating the curing process. This extra cut does not extend to the tail, and much care is exercised in cleaning away the blood, which includes the kidneys, dorsal artery, etc., from the undersurface of the backbone. The split fish are placed in strong brine for thirty minutes. After draining they are ready for smoking. Rows of fish are hooked by the shoulders on sticks and placed in a smoke-room in tiers one above the other. They are exposed for five or six hours to dense smoke. The small-sized fish are cured separately, the time of pickling and smoking being less, as they would become tough were they subjected to the same treatment as the large thick fish.

Canadian Method of Preparation.

In Canada, the method adopted is different in many details. The fish are split on belly or the thin underside, and the edges therefore are thin and tend to become hard and dry. No additional cut behind the backbone is made, and tests have shown that bacteria appear in that region within forty-eight hours. The smoking is produced by burning hardwood, usually beech or birch and as the smoke is not so dense as in the Scottish method, the fish are smoked much longer, from fifteen to eighteen hours, so that the thin edges become brittle, and the thick middle portions may be still moist and scarcely affected by the smoke. Moreover, the fish are often allowed to stand two or three days, before curing, in order to allow the blood to drain away; but, as Miss Patterson has pointed out, this could be accomplished in an hour or two were the fish placed on ice, and the process of curing and smoking processes completed with greater expedition.

Conditions Stated for Curing.

In her report, to be published shortly, Miss Patterson deals with the various conditions observed in preparing Canadian haddies for our markets. The vast area over which the fish are to be distributed, the distance and variability of the markets, and the extreme weather conditions, are in great contrast to those which obtain in Britain, where Scottish haddies quickly reach the markets, near at hand. The immense demand implies their rapid consumption, and these and other conditions make it possible to prepare a more lightly smoked and cured product. The differences in the two methods of curing are sen in:

1st. The time of soaking in brine.
2nd. The strength or quality of brine.
3rd. The density and kind of smoke.
4th. The period of smoking.
5th. The method of splitting.

In Miss Patterson's experiments, the tests made embodied pre-arranged variations of all the conditions just stated, and a record was made of the flavour of the different fish after cooking, and opinions obtained from the individuals to whom they were submitted.

Scientific Tests of Canadian Methods, 1915.

Apart from some tests made with cured hake, there were twelve series of tests completed with specimens of cured haddock. In the first series the usual methods adopted by Bay of Fundy curers were carried out, the fish being split down the belly or under-side not the back of the fish, and, after gutting and washing, they were 'brined,' or soaked in pickle, for twenty-five minutes. The pickle was strong enough to float a fish. After draining, they were smoked for eighteen hours, and the resulting product was found to be dark in colour, and the edges so dry as to be almost brittle. In the second and third series the time of 'brining' was thirty minutes, and the smoking extended over six hours, and fifteen hours, respectively, creosote being added in the former series. The colour in the six-hours' fish was pale, and the flesh was soft, and delicate in flavour; but in the latter, the flesh was more firm, the flavour more pronounced, and the colour much darker. The 4th, 5th, and 6th series were larger fish, three to four pounds in weight, and all were smoked for eighteen hours; but those 'brined' for thirty minutes, proved to be most delicious in flavour, and the flesh was neither too firm or too salt; whereas when 'brined' for 120 minutes, the fish were decidedly salty and would require soaking previous to being cooked; but the last series 'brined' for four hours were tough in texture, very salty in flavour though were possessed of fine 'keeping' qualities, as they kept perfectly for over two weeks at a temperature of 50 degree F. (10 degree C.).

Tests Made on Scottish Plan, 1915.

The remaining of six series of fish were treated in the Scottish fashion and split dorsally, the knife being inserted down the middle of the back or thick part of the fish, while the middle of the split fish was thin; this being the reverse of the usual Canadian finnan haddie. The extra cut, in the Scottish fashion, was also made along the vertebrae. The 7th, 8th, and 9th lots consisted of small (½ lb. fish) and were 'brined' 15 minutes, and smoked for five hours. The result was insufficient flavour amounting, in the opinion of some to insipidity; but the ten hours' smoking preserved the moisture and delicious flavour; while those smoked 15 hours were friable, breaking up when cooked, but preserving well for a period of nine days, in the month of August. A fourth lot, (the 10th), 'brined' for 30 minutes and smoked 10 hrs. were very firm in texture, possessed admirable keeping qualities, but the flavour was less delicate and appetizing, and the colour was quite brown. Finally two lots (11th. and 12th.) of larger haddocks were 'brined' for an hour, and one series smoked for ten hours, and the second series for 15 hrs, with a resulting flavour that was pronounced good, though somewhat salty, and necessitating three washings to remove the excess saltiness. The texture also was coarse and dry and the fish lacked the moist flakiness and delicate flavour of those 'brined' for a shorter time.

General Conclusions From Tests Made.

In order to make her work complete, Miss Patterson included some laborious biochemical tests to determine the protein content of the cured haddock-muscle; and to decide also the rapidity of salt penetration into the thick muscles during the 'brining' process. The results are too technical to set forth here, and a popular account, it is expected, will be included in the scientific report to be issued in due course by the Biological Board.

It may suffice here to state that it takes about four hours for the flesh under the bone, in the split finnan haddie, to become as salt as the outer parts. Hence the Scottish vertebral cut is effective and very desirable in order to hasten salt-penetration. This precaution is emphasised by Miss Patterson, and stress is also laid on the following points:—

1st. Haddock should be kept cool on ice for one or two hours to drain off the blood.

2. They should be well washed in fresh water.

3. 15 minutes' 'brining' is sufficient for small fish; but large fish, up to 4 lbs. require nearly 60 minutes, though if 'brined' longer, the texture of the flesh is affected. 30 minutes' 'brining' seems to be reliable length to preserve excellent flavour.

4. Beechwood sawdust-smoke; or old wood smoke, used for ten hours, produced delicious flavour.

5. Longer smoking, fifteen to eighteen hours, excessively browns the fish and dries them, though it aids in their preservation for a longer period.

In the production of finnan haddie there are at least seven important features requiring attention,—namely, delicacy of flavour, saltness, dryness, colour, texture (flakey, mushey or friable) keeping quality, moisture, and absence of blood or offensive discolouration.

Causes of Self-Digestion in Fish-Tissues.

In the foregoing notes, emphasis has been laid upon the necessity of fish being gutted, soon after capture, as the intestinal ferments and, especially, the dissolving of the intestinal wall, hasten putrefaction. Fish which are not gutted decompose far more rapidly, even though placed on ice for a time as the degree of cold produced by icing, does not stop the fermenting changes in the intestine. Researches have not shown that autolysis is as extensive as might have been anticipated, though the process of auto-digestion in the abdominal wall, does proceed within one or two days after capture, and in four days it has been found to unfailingly occur. This auto-digestion is hastened or delayed also by the character of the food upon which the fish have been subsisting. In herring and mackerel which have been feeding upon copepods, and other readily putrefying crustacea, the intestine undergoes auto-digestion in a few hours, but if the fish have been fasting, there is considerable delay in this process after the death of the fish. Carbohydrates, taken as food, result in the slower solution of the intestinal wall, but very few fish feed normally upon carbo-hydrates.

Death-Stiffened Fish Best for Freezing.

It is interesting to note that tests have proved that fresh fish are best preserved when rigor mortis has set in, and is complete, whether gutted or ungutted; but those frozen before rigor sets in, are better than those in which rigor has passed away before freezing. Indeed, it may be laid down as a general principle, that rapidity of decomposition after removal from ice, is in proportion to the number of hours which elapsed before the fish were subjected to icing. A ready method of detecting rigor mortis in a fish is to balance it on the finger, and if both the head and tail drop, rigor mortis has passed away, or it has not yet set in.

It is not too much to say that when the papers upon this subject of the curing and preservation of finnan haddie are completed and issued by the Biological Board, fish curers, and all interested in the handling of fish, will find information and guidance of the utmost value and importance.

THE EASTERLY WIND.

Keen and cutting is the East Wind,
Cutting to the very bone,
Ay, and searching to the marrow
Of the old men, rheumy grown.
Raw and rude its mildest manner,
Shivery sharp its stinging touch,
Blight is blazoned on its banner
And the coast-folk fear it much.

For it ruffles up the demons,
Lurking ever off the shore
Till in all their glory gloating,
They arise and rage and roar;
And the tricky breakers, bursting
Into fury, fiercely fume,
Till the rugged coast is curtained
With a cloud of flying spume.

How it loves to wreak destruction
On the fisher's frugal gear,
In a stormy hour, smashing
Fruits, perchance, of many a year.
Woe betide the hapless seaman,
Caught by such unyielding foes;
Heaven help the hardy toiler,
As in Danger's way he goes.

CECIL BOYD.

FISHEATERS HAVE SMALL EYES.

The reason why a fish diet is so good for brain workers is because fish contains a certain amount of phophorus, which is excellent for the brain. It is a curious fact, by the way, that the frequent eating of fish affects the size of the eyes. Among native tribes who live very largely on a fish diet, it will be found that their eyes are much smaller than is the case with meat eaters.

HOME OF MUSICAL FISH.

Lake Batticaloa, Ceylon, has the probably unique distinction of being the home of musical fish. The sounds emitted by these are said to be as sweet and melodious as those which would be produced by a series of aeolian harps. Crossing the lake in a boat one can plainly distinguish the pleasant sounds. If an oar is dipped in the water the melody becomes louder and more distinct. Next!

THIS IS AN INVITATION TO YOU TO ATTEND THE ANNUAL CONVENTION AND BANQUET OF THE CANADIAN FISHERIES ASSOCIATION AT MONTREAL ON JANUARY THIRTY-FIRST. COME AND GET ACQUAINTED WITH THE TRADE FROM ALL OVER CANADA. :: ::

A FISH DAY

An Innovation to Promote the Activities of the Fish Interests.

(By J. A. Paulhus, Chairman of the Editorial and Publicity Committee of the Canadian Fisheries Association.)

This is a Leap year. One more day is added to the calendar, one more working day means a lot in economic value. It means more wealth for distribution, more savings for the thrifty, more knowledge for the student, more ideas for the intellectual, more value all around added to the year. It is our duty to make the most of this extra day.

In our particular sphere of action, could not something be done to enhance and promote the interests of our industry? It strikes me that this particular day of this leap year, February 29th, should be a fitting occasion to inaugurate a day, which would be known in the years to come as, the Fish Day of the Dominion. It is said "Every dog has his day," and why should not the fish have it's Day. To that effect I propose most earnestly that after this year, our Association, at its general meeting, should decide the date of an annual Fish Day. I believe, however, that it should take place during the month of February. Firstly, because in the abstract the month of February in the calendar year is under the sign of the Fishes—this appeals to the imagination.

Secondly, it is during this month that as a rule the Lenten season commences, and we all know the concrete influence of this season on the fish trade.

Thirdly, at this particular period of the year, stocks of all kinds of fish have accumulated in great variety and it affords a greater choice to select from. It is also the period of cold weather when Fish can be conveniently and more safely carried and distributed.

The Fish Day that we wish to inaugurate should not be merely an occasion to make speeches, to read papers, or to comment on the operations of the Naval Service Department, and revise the statistics. It should be a Day of action, and the slogan; "Eat Fish, more Fish, and plenty of it," should be more in evidence than ever.

It should be a festival of good cheer, bon viveur, after the style of the old mythological feasts, so that a fat salmon buried in crisp Boston lettuce adorned with thin slices of juicy lemon, cucumber and other tasty seasonings would become as significant, to us, of good things, as Bacchus crowned with vine leaves was to the ancients. Or our Fish Day might be a repetition of those Fairs of more modern epochs. The part of the trade in this festival would be to make a great demonstration by the Fishermen, an exposition of the riches of our prolific waters, decorated with bunting, mottoes, inscriptions; even illuminating signs should be displayed at every market and business place.

There should be everywhere an atmosphere of bustle and activity, so that hesitation to participate for the good influence in this festival would be impossible. In the public demonstration new adherents to the cause would join by myriads. But to make the Fish Day a success and to implant the idea securely in the hearts and minds of our people, it is necessary to give it a wide publicity. From the Arctic Sea to the Great Lakes, from the Atlantic to the Pacific, the Press of our country should proclaim the advantages and the merits of Fish as a food. Every member of our Association should do his share of a advertising in this connection. It is also the duty of each one of the Executive not to share efforts but to co-operate fully with the press and give all attention to the movement.

I say also that our Provincial and Federal Governments, our Transportation and Public Utilities Commission, should throw all their influence to bear upon a subject which is interesting and concerns every citizen of Canada. After all the Fish Day will be a stimulant and a means to develop one of this country's' best assets. It is also a patriotic effort in every sense of the word.

Our Fish industry is not less precious, less valuable than our Mines, our Forests, or our Agricultural Lands, and really a good deal less has been done to develop the Fish industry.

For many reasons our Fish industry should receive more encouragement, as it is a better asset for our country than any of our other industries. All that is necessary is to exploit the Fish—nature constantly replenishes the losses without any cost or effort to the exploiter.

In the case of our Mines, after the ore is taken out, nothing of any value is left. It takes one hundred years to replace the growth of a forest that has been cut, and if farming could be done without tilling the soil, planting the seed and fertilizing, it would then be on the same footing as our Fisheries.

And as regards food products, crops will fail, disease will spread and annihilate cattle, but no famine is possible with our fisheries, and the more we develop them the more valuable they will become. So a Fish Day every year is imperative. We must at all costs get the public interested in the development of our Fisheries.

Let everyone be ready, then, for the next 29th February, the first Fish Day to be celebrated in this country.

THE FISHERIES' FORUM

LETTERS TO THE EDITOR.

Editor,
Canadian Fisherman,

Dear Sir,

I regret business has prevented me from replying to the letter from our good friend "King Alfred of Brittain" which appeared in the Fisherman for December, but nevertheless I had not lost sight of the matter altogether. I wish to thank Mr. Brittain for the information contained in his contribution but I am not yet convinced that he has submitted any argument which would justify the expenditure of $80,000 to $100,000 for Express Subsidies by the Government.

When I wrote our official Organ I quoted information which had previously appeared in "The Fisherman," and which had been given by Clarence Jamieson, M.P. So far as I am aware, and I have relied upon the information referred to, the statement in question is correct, and it must have been obvious to Mr. Brittain and all other Wholesale dealers in Fish, that the effect of the Government Subsidy has not been towards an actual cheapening of Fish to the Man who eats it.

Mr. Brittain maintains the subsidy ought to be continued "for the sake of the small Fisherman and also the dealer in small towns of Ontario and Quebec." Surely it is inconsistent to spend an enormous sum ($100,000), merely to find a market for a limited, and I am sure, a very limited portion of the Nova Scotia production, as the bulk of the catch I am certain must find a market in the larger centres. A reference to the Fisherman for January (Page 4) will show that the value of Fish caught in Nova Scotia 1914-1915 amounted to seven and three quarter million dollars. The same article shows the value of Manitoba, Ontario and the Inland Provinces Fish and it indicates the mean item in the record for the Dominion. Why should the Fish from Nova Scotia or British Columbia be favoured in so far as receiving the advantage of a subsidy when the fish caught in Manitoba and the other provinces inland have to enter competition with the Sea Fish of the Pacific and the Atlantic and at the same time bear the full cost of transportation charges? But I do not ask for any favor for our Lake Fish. We are developing our business on the merits of the Fish alone, but the time has undoubtedly arrived when we can with good grace inform our Government that subsidies are no longer necessary in the Fish business. With decreasing values in the total production in British Columbia and Nova Scotia, and with an increasing demand for the products from both Provinces, it is inconsistent to urge a continuation of the subsidy.

No matter how you look at the question, I claim we cannot expect the Government to continue the rebate of one third Express charges any longer. It doubtless did some good in its initial year or the following year, but we have come to the time now when we can very well pay the actual cost of transportation on all our Fish, and if rates either by Express or Freight are excessive, our activities towards a reduction must be directed against the Transportation Companies and not toward the Government who have no more right to pay Express on Fish than they would have on Fruit, Milk, or any other commodity.

In a word, does it not strike Mr. Brittain that the Dominion of Canada have other more important and necessary channels through which the subsidy money can be spent to good advantage.

It is not the case of saying, cut off the subsidy from British Columbia, but leave Nova Scotia alone. It is time to eliminate it altogether, and unless Mr. Brittain or some other dealer can demonstrate to me emphatically, that fish are being sold cheaper by reason of the subsidy than would otherwise prevail, then I adhere to the opinions I hold and which I have already expressed in your columns.

Yours truly,
WM. DOUGLAS.

Winnipeg, Man., 10 January.

NEW STURGEON FISHING LAWS

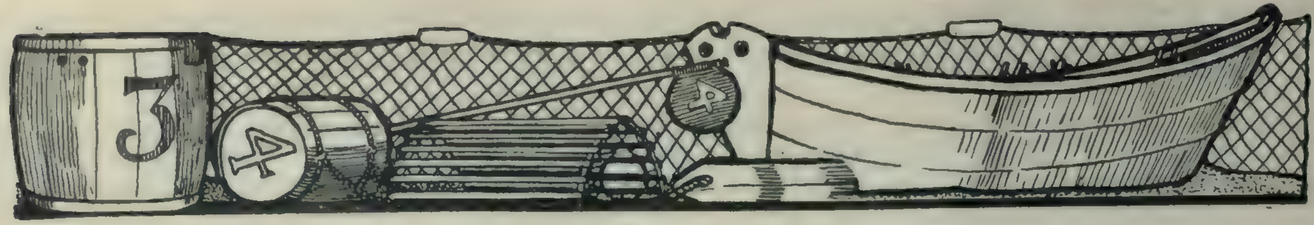
Sturgeon fishing in the Provinces of Manitoba, Saskatchewan, Alberta and the Northern territories, which was prohibited for four years, can no wbe resumed. The close season extends from October 16th to June 15th—both days inclusive. The fishery must be carried out by means of gill-nets or baited hooks. Gill nets must be not less than 12 inches extension measure in Lake Winnipeg, and 11 inches elsewhere. Commercial fishermen with a license must not use more than 500 yards of gill-net or more than 500 baited hooks. Hooks must be attached to the back or ground line not less than three feet apart. Sturgeon weighing less than 18 lbs. undressed must be returned alive to the water. Penning, tying up and tethering sturgeon is prohibited. Commercial license fee is $5.

CANADA FISH PRODUCTS PLANT IS SEVENTEEN YEARS OLD.

The Canada Fish Products plant on the Fraser River started about seventeen years ago, with Admiral Lord Beresford as one of the principal stock holders, is still in operation, about a mile from Ladner.

This plant has a capacity of 250 tons of raw materian in twenty-four hours, being run night and day during the season. The two products of the plant are fish oil and fertilizer. The oil which is used for tanning leather is shipped to England, while the fertilizer finds a ready market in California. The local price for the fertilizer is $37.50 per ton. The demand from California, however, exceeds the supply. The company at present operating the plant is an English one and the venture has proved a very profitable one for the shareholders.

THE LIVE FISH MAN WILL BE IN MONTREAL ON JANUARY THIRTY-FIRST. :: :: ::



THE ATLANTIC FISHERIES

THE TWELVE MONTHS' TALLY.

(In Canso's Fishery for 1915, by Cecil Boyd.)

One of the things that separates man from the lower animals is that fact that man has a strong memory and therefore a past, while the beast, the fish and the fowl, though one would scarcely like to deny to all of them, for example, the dog, the horse, the monkey, a possible faint glimmering of such a faculty as remembrance, have practically none in any real, definite sense of the word. Even for that faint spark that some of these may possess, no means of its recording has been given to, or obtained by them. How natural it is then that with such mental possessions, whether gifts or acquirements, Man should be fond of recording his past (which we call history) for the double purpose of entertainment and instruction. Coming to smaller things, how natural it is for an industry, a town, a company or an individual to look back at times over a certain period, and compare the story written there by Time's moving finger, its bright, its bare, and its bad spots, with the tale recorded of other periods: The time around the ending of the old and the beginning of the new stretch of seasons seems to naturally suggest such a backward-looking comparison.

Some reader may here break in to remark somewhat thusly: “Say, if he is going to review Canso's fishing industry for the past year, as the headlines indicate, why not do so without so much beating about the bush.” Well, possibly the writer suffers at times, from a prosy habit of speculating on the Why and Wherefore of things; and now, in the present case, having said enough to satisfy that spirit of enquiry, I will at once get down to the bedrock of business, which, as has been already stated, is to run over that chapter of the volume of 1915, which has to do with the local fishing industry.

1915, like most years in our town, has neither been an unbroken success nor a dismal failure, but has had its ups and downs, with a substantial balance, we believe, to the good, with the closing of the books. But to tell the story properly, perhaps it would be best to begin at the beginning and finish at the end, our aim being to spin a yarn that will, as far as possible, square with the plumbline of truth, as we understand it.

Last year the winter-haddocking finished up late in January, with about an average season. The winter continued an exceptionally mild and unstormy one, as was evidenced by the Rayondor remaining here instead of returning home, and fishing out of here until March, when she went to Halifax for repairs. This clemency of the climate also induced some of the fishermen at Whitehead (a coast village some score of miles from Canso, which is growing into a thriving little fishing-port) to try their luck. They succeeded in bringing in some moderate catches about the first of March, but “Old Probs.” soon woke up from the nap he had been taking and got busy. As a consequence, the rough boisterous weather typical of March put a stop to further activity along that line. So, with these exceptions, February and March were employed as usual, that is, as months of enforced layby from actual fishing, but of preparation for active times ahead. Nets, seines and gear of various kinds are overhauled and mended, and especially does the lobsterman, during this spell, get busy in anticipation of the opening of the season on April 1st.

Gloomy prophecies about the market for these shellfish began to bloom on the heels of the War's outbreak and flourished greatly through the fall of 1914, so much so that in some quarters, a close season for 1915 was advocated and seriously discussed for some time. In spite of this, however, the season proved one of the best. Not only were lobsters rather plentiful large proportion of “markets,” and the price hung around the same high figure as that of late years. So that altogether, this important branch of the local industry exceeded expectations and belied the blue-ruin predictions, that were rampant. The canning factories, of which there are three in town, enjoyed a busy season. The Lobster Hatchery was on the job again this year. Patrol boat “C,” Capt. Deyoung, collected spawn until she went west on patrol service, late in May, when Capt. J. J. Berrigan in his big auxiliary boat took up the work, which he continued to perform till the close of operations. Early in June there was quite a run of haddock at White Point, but the results were somewhat disappointing. During the few days they were on, some of the traps had good catches, but others missed the run.

During the summer months, swordfishing, as usual of late years was followed up with great vigor and a large number of these fish were landed, a few of the high liners securing in the neighborhood of 100 of “the swords” or over. Although the local price was not overhigh, results averaged up fairly well. There was nothing very notable about the summer codfishing. The Rayondor resumed her operations out of this port and is still bringing in weekly fares, usually pretty good ones though some trips she missed the fish.

On August 24th, Canso's local gala-day, the annual Regatta, came off with great success. This event, which dates its birth from 1884, and with the exception of the War-year, 1914, has been regularly held each recurring twelve months, have become almost an indispensable feature of Canso's yearly round. While changing conditions in the fishing industry, and in the town generally, such as the wide and increasing use of the gasoline engine in fishing craft, has considerably changed the aspect of the event, yet it is still looked forward to by the majority of citizens as something worth while keeping up, a day that advertises the town and its resources more or less, and a festive and fraternal day that would be missed by many, if it were dropped completely. There were three classes in the boat races, all well-contested, and a large number of prizes, many extra ones being specially contributed by various firms and individuals interested in the industry. Excursion boats brought a large quota of outside visitors, among whom may be mentioned a member of the Provincial Government, and J. H. Sinclair, M.P., who distributed the prizes.

About mid-August a Lobnitz Rockcutter, in the employ of the Public Works Department, arrived in Canso harbor, and with her 22-ton drill began to hammer away at a nasty ledge of rock, which, situated about midway of the harbor has always been something of a menace to shipping and therefore a decided defect to the safety and usefulness of the port. After working at this ledge several months, the Rockcutter was followed by another dredge to clean up the cut-up stone. The latter has just sailed for some Western point, Lunenburg, it is said. We are not in a position to pronounce as to the quality of the work performed, but we hope it has been efficient and successful or we may have something to say later.

During the later part of October and early in November, there was a fine run of fall mackerel, but right on the back of the best day's catch, a heavy Easterly jumped in and hung on for several days, playing the deuce of a havoc with the gear. It was a very emphatic illustration of the uncertainty of the fisherman's calling. There is certainly a large element of chance about the business, some of which, at least, we believe could be removed, and no doubt in time will be by greater scientific attention along technical lines.

The autumn and winter months to date have been, we believe, almost the windiest and roughest on record. It is certainly impossible to remember any equally so in the recent history of the fall haddocking here. Many a day in succession the boats had to lay at their berth or anchorage, only an occasional one being at all suitable for getting on the grounds. Since mid-December there has been considerable improvement, and the boats have been getting fair catches lately. One day this week bumper fares were landed and as the weather shows signs of keeping fairly open, there is good backing for an optimistic hope that the haddocking will yet finish up with a substantial total, particularly as the price has fortunately been the highest obtainable for many years, haddock hanging about 2¾ cents. There have been a number of reports and complaints lately that certain steam trawlers have been violating the law by dragging within the prescribed limits laid off for the protection of the shore fishermen. If these reports be true, and there seems some reason to believe so, the matter should certainly be looked into by the proper authorities, as there are by far too many loafing laws on the statute-books now. In the writer's opinion, if any law be worth passing, it is surely worth enforcing if it is found worthles sor impossible of enforcement, let it be rescinded, but let our law-makers give up the framing of farces to fill in theid idle hours.

Dogfish as of yore were active at their old bad trade of causing damage and making mischief among the other valuable varieties of the finny tribe, as well as the fishermen's gear, and the Reduction Works has plenty of business. A number of visiting officials were conspicuous by their presence at the plant on several occasions, but whether those visits were forerunners of any contemplated changes, we know not.

The year now past and filed away in the records of Father Time has witnessed many evidences of prosperity and enlargement among the progressive firms that do business along Canso's waterfront. The Maritime Fish Corporation, Matthews and Scott, A. Wilson & Son, Portland Co., and A. Fader, all seem to be thriving if one can judge from outward appearances. Matthews and Scott have added a long new pier to their previously lusty plant, on which has been erected a 100 ft. shed for storage purposes. The other firms mentioned have also been to the fore with additions and improvements, which speak well for the healthiness of their trade and establishments. We must not conclude without remembering to record the advent of another one to the list of fish buyers in active service here. R. Hendsbee of Queensport, a well-known dealer of many years standing, has established a live branch under the management of Councillor George Hurst, and is getting his share of business with the rest.

In concluding this hasty summary of the past year in Canso's chief industry and commercial asset, the writer hopes that the year now under way may prove a banner and a bumper one, not only for the industry within the confines of this locality, but wherever it is prosecuted by honest toiling men of good intent.

DIGBY, N.S.

(Special Correspondence.)

For the past month there have been practically no vessel landing here, and very few boat fish. If the haddock have not already started, they will soon begin to move away from the shores and for the next landings of any importance we shall likely have to depend on the off-shore vessels fishing on Brown's, George's and Western Banks; although there may be a short run of large, fat haddock around the mouth of the Bay, as the fish leaving the Bay usually trim the shore pretty well on their way out. Capt. Arthur Casey, of the schooner Lila Boutilier reports this season as being the worst he has experienced in twenty-two years fishing and says he has been able to make only thirty "sets" since September 10th. The Maritime Fish Corporation, in endeavoring to take care of their regular orders, have been hauling fresh stock by carload from their Canso Branch whenever there was any fish to spare at that place.

The local Lobster season opened at eight o'clock, January 6th, but on account of very rough weather most of the traps were not put out until the 10th and 11th. The fishermen report lobsters as being scarce; but this does not seem to hold true at least as far as "tinkers" are concerned, for the factories were busy on the 10th and 11th, and it is said that two of them were putting out ten cases each, which would require about 4,000 lbs. of tinker lobsters. It has been rumored that the Fishery Overseer has evidence of four parties violating the lobster law in being ambitious, or perhaps avaricious, enough to get traps out before the open

COME AND GET ACQUAINTED WITH THE FISH TRADE OF CANADA IN MONTREAL ON JANUARY THIRTY-FIRST. COME AND LISTEN TO TALKS FROM MEN WHO KNOW WHAT THEY ARE TALKING ABOUT. :: :: :: :: :: :: :: :: :: ::

season, and at this writing he is away investigating to see if the evidence warrants action being taken.

The following statistics are from the Fishery Overseer's report to the Department, showing fish caught and landed in Digby County for the month of December:

Cod	188,700 lbs.
Haddock	792,300 "
Hake	149,200 "
Cusk	38,900 "
Pollock	600 "
Herring	20,000 "
Halibut	1,700 "
Skate Wings	800 "
Smelts	500 "
Tom Cods	2,000 "
Mussels	4,100 "
Winkles	6,300 "
Clams	42 bbls.

Fish shipments originating only from this port during the month of December aggregate as follows:

23,536 boxes Smoked Fish.
712 tubs Dry Hake.
67 drums Dry Fish.
84 barrels Fresh Fish.
34 barrels Shell Fish.
31 barrels Clams.
7 barrels Dulse.
5 cases Fresh Fish.
10 barrels Fish Oil.
17 bags Dry Hake Sounds.

FEBRUARY 29TH

A National Fish Day for Canada.

IN NEWFOUNDLAND.

(Special Correspondence.)

Since our last communication the situation in Greece has improved, and we have really opened the Greek market again. For a while we were in a pretty bad condition. Our vessels were held up at Gibraltar, some for two, others for three weeks, but happily it worked out O.K. Our bankers are now preparing for the Western winter fishery and veterans like John Lewis and the Hollets are buying the bait supply from Gloucester, Mass.

Our Herring Fishery.

Our Herring Fishery has proved to be one of the most valuable on record. Chiefly on account of our Eastern fishery, we have scored a very extraordinary production. In Green Bay we have outputted 40,000 barrels and if weather conditions prove favorable it is quite possible we shall put out 10,000 more. The extraordinary thing about our herring outfit this year is that we have been exporting to Ireland; it looks like bringing "coals to New Castle" because we have not shipped a barrel of herring to the Old Country in 75 years; and the strangest thing about it is that the shipper is an American citizen.

Our experience this year has been rather peculiar. We are finding conditions that are somewhat extraordinary. For example, our veteran, Captain John Lewis, has been into the herring trade. He went to Sound Island in the early part of November and succeeded in getting a cargo of bulk stuff.

Captain Carroll, of the Schooner Passport, succeeded in getting a small cargo; but in finding herring quite scarce at Harbor Buffet, where he went to try and secure a cargo. Formerly there seemed to be no difficulty in getting a cargo of good full stuff. But this year there seems to be a difficulty to procure the goods.

New Situation.

A new situation has cropped up with us this season: we are actually shipping herring to Ireland. This looks like the most peculiar situation in existence. We are actually sending "coals to Newcastle." Mr. Prevost has been buying for the Buckworth Company, of Cork, Ireland, who are located in North Sydney, has shipped a cargo across in an American bottom. We have also shipped several consignments to France. Our last was a consignment to Havre, shipped by Mr. Biddelle, who has been operating for supposedly an international company in St. John. Mr. Biddelle is actually buying for a French Company with headquarters at Havre. He is a very reliable personage, and he is operating for very reliable people. The writer knows Mr. Biddelle personally, and it is a rather singular coincidence that he learned French from Mr. Biddelle's father, thus giving him a chance to-day to realize how important the French language is.

Cod Oils.

The situation in cod oil is the strangest on record. About a month ago we got information that our cod oil was being exploited by an American firm for shipment to Holland for delivery to a Germany Naturally we got busy and so busy that the Government took a step in and actually prohibited the exportation of oil. However, we realized later that this information was not "according to Hoyle," and the purchasers of cod oil have been permitted to export the stuff at fancy prices. Permit us to say that the largest exporters of stuff are the F. P. U., they have been exporting very largely for the past three or four months, and they have been also getting for the fishermen $150.00 a ton, and what's more, they have been giving to the fishermen the entire amount less their commission on exchange. This is possibly the greatest advantage ever received from the F. P. U. They have demonstrated, not only their power, but also their influence as exporters of Newfoundland produce. They have proved to a world generally, that they absolutely control the biggest end of the Newfoundland trade; and in future when people speak of Newfoundland trade they must absolutely reckon with this extraordinary organization.

Clarence Jamieson, M.P. for Digby, will introduce a bill in the House of Commons shortly on the question of the disparity in prices paid the fishermen for fish, and the price paid by the consumer.

YARMOUTH, N.S.

(Special Correspondence).

The past few weeks have been very good for the fishermen in all branches of that industry, the lobstermen particularly having great luck. The shipments of this toothsome crustacean ever since the season opened on December 15, have been exceptionally large, the record for the big shipments during the early part of the season having been passed on two occasions. The weather has been very mild; in fact, the year 1915 was very unusual in that from January 1st until December 31—a whole twelve months—there had not been frost enough to make ice for skating on the open ponds. There had been a few hours' skating in one or two of the coves, but that was all. This continued mild weather, the fishermen say, has had the effect of keeping the lobsters inshore. For that reason they do not have to go so far and can tend far more traps. Perhaps, in my correspondence I devote a little too much space to this industry, but it is an industry in which Yarmouth is deeply interested. For years Yarmouth has done the largest export business in live lobsters of any fishing port in the world, and we have reason to be proud of our lobster fishermen and their work. In the seven shipments which have been made since the season opened 4,191 crates have gone forward which sold at an average of over $25, bringing our fishermen about $65,000. The whole community gets the benefit of that sum and so the whole community watches the lobster with interest.

And yet when we speak of the live lobster, mackerel; strawberry, blueberry and other natural products shipments of this port we are very apt to overlook the fact that all these industries are of comparatively recent growth and that the pioneers in all these various branches are still alive, watching with interest the increases from year to year. Hand in hand with them, growing up with them from their infancy, has been the increase in transportation facilities. One could not exist without the other, and as one grows the other must keep pace with it. About all these branches of commerce had their origin in the seventies, and F. L. Hatfield, one of our town merchants—not too old to do business yet—was at the birth of each one, and has told your correspondent all about them. It was Mr. Hatfield who made the experiment of shipping live lobsters from Canso, his shipment consisting of two crates sent to Boston by rail. Train connections were not so good then as now, but in spite of all the drawbacks enough got through alive to cover the expenses. That shipment was consigned to Harry Putman. But earlier than that he had shipped from Yarmouth. He tells of going down to the mouth of the Tushet River and bringing about twelve barrels caught in that locality. He had them landed at the "Narrows" (Plymouth) where they were packed in eelgrass and rockweed and brought to town. The roads in these days were not built for automobiles and were very rough especially in spots, so the barrels were put on spring boards placed lengthwise on the waggon so as to reduce the jar to a minimum. On their arrival in town they were repacked and shipped on the steamer Linda to several different commission houses—Johnson & Young taking the largest portion. This shipment netted between $3 and $4 per barrel, and it was the first shipment of live lobsters in packages, although they had been shipped previously in well-smacks. From this humble beginning grew the great live lobster industry of to-day.

But this is all ancient history. What I am supposed to write about is the fish news of to-day, and I have covered the lobster story fairly well. The fishing schooners have also been doing well, although their trips have been badly broken up by bad weather. But fish are fairly plentiful and when the vessels do have a change to go out they take good fares. The prices are pretty well up, too. One Yarmouth owned vessel (under the American flag), the Morning Star, landed a good fare at Boston a few days ago, and got splendid prices. Her catch of halibut sold from the vessel at 45 cents.

Then there is unusual activity in the salt fish markets of the world. So much is being taken to the wharf for shipment that the boats cannot handle it all. These shipments are either direct foreign export or to United States ports for re-shipment.

Michael Joseph Neville, of Halifax, one of the best known and most popular among the many fish dealers in Nova Scotia, died in Yarmouth, January 6th, of typhoid-pneumonia, aged 41 years. He left a widow, one daughter, Miss Kathleen, and one son, John, besides his mother, four brothers, Thomas, of Ottawa, Patrick, with the 25th, "somewhere in France," John and James, of Halifax, and two sisters, Mrs. Rose O'Neil and Miss Mary, also of Halifax. Mr. Neville had a wide acquaintance all along the coast of Nova Scotia, very few men being better known. As a director and the principal "outside man" of Neville's Canneries, Limited, his business had brought him into direct contact with the thousands of fishermen. Even in places away from the usual routes his acquaintanceship was wide as he made it a point to know the men with whom the firm did business even if only ni a small way. The many activities of the firm made it necessary for him to cover a great deal of ground, to what extent, perhaps, will be better understood, when it is learned that besides the headquarters at Halifax, and the principal branch at Yarmouth, there are canmaking plants or canneries at Westport, Sandford, Abbott's Harbor, West Pubnico, Clark's Harbor, Port Mouton, Sambro, Jeddore, Fourchu, Port Beckerton, Gabarus and White Point. Mr. Neville had spent his lifetime in the firm's interests. The business was established by Michael Neville, sr., who emigrated from Ireland direct to Port Mouton where he first started business. After his death the business was conducted by his widow (who still survives) who later took all four of her sons in with her. According to his usual practice Mr. Neville came to Yarmouth at the beginning of November to oversee the operations of the firm during the lobster season. He was taken sick about the end of the month, first with a severe cold which afterwards developed into typhoid. He was progressing favorably and hopes were held out for his ultimate recovery until Monday, January 3rd, when pneumonia developed, after which he sank rapidly.

COME AND FIND OUT WHAT THE CANADIAN FISHERIES ASSOCIATION IS ENDEAVOURING TO DO FOR THE FISHING INDUSTRY OF CANADA. FISH DEALER OR FISHERMAN, BOTH ARE WELCOME. :: :: :: :: :: :: :: :: :: ::

Following have been the exports for the last seven shipments:

Live Lobsters, crates	4,191
Fresh Fish, cases	948
Eels, barrels	94
Dry Salt Cod, boxes	330
Scallops, half barrels	126
Smelts, boxes	400
Finan Haddies, boxes	1,768
Fish Waste, barrels	99
Boneless Fish, boxes	2,528
Pickled Fish, cases	203
Salt Herring, barrels	318
Salt Mackerel, barrels	2
Dry Salt Fish, cases	2,894
Dulse, barrels	6
Canned Lobster, cases	85
Penimillis, barrels	1
Fish Scraps, barrels	1
Hake Samids, bags	45
Dry Salt Fish, cases	700
Smoked Fillets, boxes	14
Clams, barrels	111
Fish Clippings, barrels	4
Fresh Halibut, cases	1
Fresh Fish, barrels	1
Cod Oil, barels	22

To Brazil:
- 310 tubs dry salt lake.
- 675 tubs dry salt fish.

To Havana:
- 890 cases, dry salt cod.
- 150 drums salt hake.
- 98 drums dry salt fish.
- 150 drums dry salt lake.
- 50 barrels bloaters.

To Porto Rico:
- 411 tierces cod.

To France:
- 25 cases, 100 half-cases canned lobster.

To St. Kitts:
- 55 cases salt fish.

To Santos:
- 750 tubs salt fish.

To Costa Rico:
- 25 drums, 15 boxes salt cod.

To New York (for re-export):
- 558 packages salt cod.

To Boston (for re-export):
- 396 drums, 40 cases salt cod.

Total value of these exports by boat to Boston, $255,411.

Following are the statistics in reference to the industry in Yarmouth, and the surrounding fishing stations:

Port Maitland — 1 vessel, 10 to 20 tons, value $500, 5 men, 2 sailboats, value: $700; 51 gasoline boats, value $15,300; 110 men. 190 gill nets, seines, trap and smelt nets, etc., value $3,400. 100 trawls, value $500. 300 hand line value $300; 8,100 lobster traps , value $8,100. 3 lobster canneries, value $1,800. 3 freezers and ice houses, value $200. 15 smoke and fish houses, value $1,500. 1 fishing pier and wharf, value $1.200. 75 persons employed in canneries, freezers and fish houses.

Sandford — 1 vessel, 10 to 20 tons, value $300; 4 men. 12 sailboats, value $190; 36 gasoline boats, value $10.800; 94 men. 185 gill nets, seines, trap and smelt nets, etc., value $7,905. 60 trawls, value $300. 200 hand lines, value $200. 6,150 lobster traps, value $6,150. 1 llobster cannery, value $900. 1 freezer and ice house, value $150. 4 smoke and fish houses, value $1,000. 1 fishing pier and wharf, value $100. 55 persons employed in canneries, freezers and fish houses.

Yarmouth—6 steam vessels, 180 tons, value $21,000; 26 men. 6 vessels, 40 tons and over, 3 vessels, 20 to 40 tons, 12 vessels, 10 to 20 tons, value $33,600; 186 men. 10 sailboats, value $800; 82 gasoline boats, value $24,000; 174 men. 1 carrying smack, value $350; 3 men. 420 gill nets, sem, trap and smelt nets, etc., value, $4,275; 160 trawls, value $800. 940 hand lines, value $940. 114,004 lobster traps, value $3,200. 4 freezers and ice houses, value $5,000. 22 smoke and fish houses, value $20,800. 15 fishing piers and wharves, value $20,500. 400 persons employed in canneries, freezers and fish houses.

Arcadia—1 vessel, 10 to 20 tons, value $500; 5 men. 5 sailboats, value $280; 32 gasoline boats, value $9,600; 74 men. 1 carrying smack, value $250; 2 men. 130 gill nets, seines, trap and smelt nets, etc., value $50. 70 hand lines, value $70. 6,440 lobster traps, value $70. 1 weir value $200. 12 trawls value $60. 2 lobster canneries, value $1,200. 3 smoke and fish houses, value $150. 2 fishing piers and wharves, value $200. 36 persons employed in canneries, frezers and fish houses.

Pinkneys Point.—6 Sailboats, value $$320; 33 gasoline boats, value $9,900; 76 men. 160 gill nets, seines, trap and smelt nets, etc., value $810. 115 trawls, value $75. 90 hand lines, value $90. 4,008 lobster traps, value $4,008. 3 smoke and fish houses, value $150. 2 fishing piers and wharves, value $400. 5 persons employed in canneries, freezers and fish houses.

Comeau Hill—12 sailboats, value $500. 62 gasoline boats, value $18,600; 140 men. 2 carrying smacks, value $600; 4 men. 260 gill nets, seines, trap and smelt nets, etc., value $1,300. 3 weirs, value $900. 42 trawls, value $210. 290 hand lines, value $290. 12,600 lobster traps, value $12,600. 3 lobster canneries, value $3,000. 5 smoke and fish houses, value $3,000. 3 fishing piers and wharves, value $2,400. 80 persons employed in canneries, freezers and fish houses.

Wedgeport—3 steam vessels, 70 tons, value $11,000; 18 men. 1 vessel, 40 tons and over, 1 vessel, 20 to 40 tons, 1 vessel, 10 to 20 tons, value $5,500; 35 men. 16 sailboats, value $320; 117 gasoline boats, value $34,100; 264 men. 2 carrying smacks, value $600; 5 men. 425 gill nets, seines, trap and smelt nets, etc., value $4,160. 13 weirs, value $2,600. 64 trawls, value $320. 550 hand lines, value $550. 19,150 lobster traps, value $19,150. 3 lobster canneries, value $3,600. 1 freezer and ice house, value $400. 25 smoke and fish houses, value $2,000. 7 fishing piers and wharves, value $7,700. 125 persons employed in canneries, freezers and fish houses.

Salmon River—20 sailboats, value $100; 24 men. 45 gill nets, seines, trap and smelt nets, etc., value $250. 2 smoke and fish houses, value $60. 4 persons employed in canneries, freezers and fish houses.

Tusket—1 vessel, 110 to 20 tons, value $300; 3 men. 85 sailboats, value $540; 90 men. 350 gill nets, seines, trap and smelt nets, etc., value $1,620. 5 weirs, value $1,500. 22 smoke and fish houses, value $1,950. 2 fishing piers and wharves, value $1,000. 36 persons employed in canneries, freezers and fish houses.

Eel Brook—2 vessels, 10 to 20 tons, value $900; 15 men. 11 sailboats, value $120; 2 gasoline boats, value $600; 12 men. 92 gill nets, seines, trap and smelt nets, etc., value $445. 200 lobster traps, value $200. 2 fishing piers and wharves, value $600.

Argyle—1 vessel, 20 to 40 tons, 5 vessels, 10 to 20 tons, value $2,500; 33 men. 9 sailboats, value $150; 34 gasoline boats, value $10,200; 77 men. 210 gill nets, seines, trap and smelt nets, etc., value $1,260. 32 trawls, value $160. 70 hand lines, value $70. 5,080 lobster traps, value $5,080. 8 smoke and fish houses, value $1,000. 2 fishing piers and wharves, value $1,200. 20 persons employed in canneries, freezers and fish houses.

Pubnico—5 vessels, 40 tons and over, 3 vessels, 20 to 40 tons, 9 vessels, 10 to 20 tons, value $23,800; 161 men. 19 sailboats, value $280; 66 gasoline boats, value $19,800; 170 men. 2 carrying smacks, value $600; 4 men. 410 gill nets, seines, trap and smelt nets, etc., value $3,280. 3 weirs, value $700. 20 trawls, value $100. 420 hand lines, value $420. 12,950 lobster traps, value $12,950. 4 lobster canneries, value $4,400. 3 freezers and ice houses, value $1,400. 33 smoke and fish houses, value $4,300. 6 fishing piers and wharves, value $6,200. 138 persons employed in canneries, freezers and fish houses.

Totals—9 steam vessels, 250 tons, value $32,000; 44 men. 12 vessels, 40 tons and over, 8 vessels, 20 to 40 tons, 33 vessels, 10 to 20 tons, value $67,900; 446 men. 207 sailboats, value $4,300; 515 gasoline boats, value $153,500; 1,305 men. 8 carrying smacks, value $2,400; 18 men. 2,877 gill nets, seines, trap and smelt nets, etc., value $29,355. 25 weirs, value $5,900. 505 trawls, value $2,525. 2,930 hand lines, values $2,930. 88,682 lobster traps, value $88,682. 19 lobster canneries, value $18,100. 12 freezers and ice houses, value $7,150. 142 smoke and fish houses, value $35,910. 43 fishing piers and wharves, value $242,500. 974 persons employed in canneries, freezers and fish houses.

LUNENBURG, N.S.

(Special Correspondence).

Lunenburg to-day is reaping the harvest of the successful bankers' work as the catch is practically all sold, the held stock being scarcely worth speaking about.

There is no doubt about this being the record year for the fishermen. Big catches and high prices are causing a vast amount of money to change hands and the crews are wearing a very satisfied look after their summer's arduous toil.

The dividends this year are unusually large and the successful skippers are congratulating themselves on the result of their skilful following of the finny denizens of the deep.

There is one young man but 26 years of age who is deserving of special mention. He is Captain George Himmelman, of the schooner J. D. Hazen. This is his first year as commander of a craft and his catch for the spring trip was 1,270 quintals; for the summer trip, 1,757 quintals, making a total of 3,027 quintals. His vessel stocked $19,200.00, his men sharing $494.00.

The catch was ranged in price latterly from $7.00 to $7.35 at Halifax, and $7.15 here. The few that are holding back it is believed are trying to see just how high the prices will soar.

The Porto Rico market has shown considerable fluctuation during the past month. This was due to the market being glutted and also to the fact that the fish were not as hard cured as they should have been, owing to the very unfavorable weather which prevailed while they were undergoing the drying process. They of course, then could not stand the hotter climate to which they were shipped and quick sales were imperative.

While this subject is under consideration there is one point worth dwelling upon and that is that the Lunenburg bank fish do not compare at all favorably with either Norwegian or Newfoundland products and if the dry fish trade is to continue to be a success, some better method of curing has to be undertaken.

It is not sufficient to paddle the fish out in just about enough water, they want plenty of it, and as they usually are washed in sea water and there is generally no dearth of that in Lunenburg County, a suggestion that the water be led to the fish houses by means of pipes thus saving the labor of bringing it in buckets, is offered.

It is, no doubt, true that there are fish makers (that being the local term) who use lots of water, and for them the suggestion is needless, but there are others who put a pretty poor class of stuff on the market and the merchants complain bitterly of it.

It is said that this immense industry which means so much to this county, should come under Government inspection thus, compelling every one to put a good article out of his hands.

Perhaps the fish makers will oppose this complaint by saying that the trouble lies with the way the fish are put in the kenches or slack salting or some other cause. A standard of good quality would correct all that and if there is a fault it could be rectified. "Remove the cause and the effect will cease, is an old adage, and it appears particularly applicable to the bank fishing industry.

There appears to be a great demand for fish in one hundred pound boxes, that style of package being much preferred to the casks.

This year, the fishing vessels did not swing lazily at their moorings as in former winters, the high freight rates offering tempting inducements for them to get out under charter. Many of them are engaged in the bulk herring trade from Newfoundland to Gloucester.

The demand for pickled fish here of all kinds is very strong, but there is scarcely any held stock.

A very large number of schooners are plying between Newfoundland and European ports, some of these have made record trips and others have encountered rough weather and had long passages. The Artisan, Captain John Walters, recently arrived from Cadiz, was five weeks coming to this port.

Among the vessels in this trade for Messrs. W. C. Smith and Company, are the Artisan, Walters; Benjamin Smith, Cockburn; J. H. McKenzie, A. Geldert; Jennie Ritcey, Naas; Frances Smith, Wynacht, and the Assurance, W. Zinck.

Messrs. Zwicker and Company have the following schooners: Lauretta Frances, Sponagle, arrived at Malaga on the 11th inst.; Elsie H. Hart, Vallis, at Alicante on Jan. 1st.; Allison H. Maxner, Maxner, at Lisbon, Dec. 20th; Adwa M. Westhaver, Westhaver, at

DO NOT FORGET THE ANNUAL CONVENTION OF THE CANADIAN FISHERIES ASSOCIATION AT MONTREAL ON JANUARY THIRTY-FIRST. IF YOU ARE A FISH MAN, COME ALONG!—YOU'LL BE WELCOME. :: :: :: :: :: :: :: :: :: ::

Oporto, Dec. 20th; Mayola, Wentzell, now on passage from Oporto to Turk's' Island; Leta J. Schwartz, Berringer, arirved at Figuera, Jan. 10th.

The schooners Falka, Conrad, Jennie Duff, Himmelman, and the Waegwoltic, Creaser, are all due here with salt. The schooner Lloyd George, Corkum, is on passage to Ponce and the F. M. Toro, A. Geldert, is loading for Ponce.

The schooner Annie L. Warren, Belliveau, is on passage to Newfoundland, thence to Brazil. The Beryl M. Corkum, Corkum, is on passage to Brazil via Louisburg and Newfoundland.

Messrs. Robin, Jones and Whitman have among others the schooner Lottie Silver, Kohler, on passage from Iviza to this port. This is the only vessel from here that chartered from Newfoundland to Naples. The R. L. Borden, Heisner, sailed from St. John's and arrived at Oporto on the first of January.

Messrs. Adams and Knickle have the schooners Wantaga, Backman, on passage here from Cadiz with salt. Marion Adams, de Coursey, discharged fish at Oporto, and will return with salt; Phyllis Westhaver, Tanner, arrived at Oporto on the 6th inst.

The schooner Evelyn Miller, Captain William Miller, is loading frozen herring at Bonne Bay for this firm. Captain Miller enjoys the distinction of being the senior captain of the fleet and is aa active and hearty as when he first started sea going.

The schooner Ida M. Zinck, Zinck, left Newfoundland, January first, for Barbadoes.

A number of Lunenburg vessels were sold this year to Newfoundland purchasers. The staunch qualities of the schooners built here carry their own recommendations and find owners readily wherever there is one to be sold. Their speed is really remarkable as may be judged from the following record trips.

Captain Fred. Richard, aged 24, of the schooner Mark Tobin, made his first trip to Louisburg from this port, for coal, arriving there in much less than twenty-four hours. He will carry coal to Newfoundland, and fish to Barbadoes.

Captain Albert Himmelman, of the schooner J. B. Young, made the trip to Louisburg from here in nineteen hours from port to port.

Captain Loraine Backman, of the schooner Wantaga; Captain Maxner, of the Allison H. Maxner, and Captain Vallis, of the Elsie M. Hart, each made the trip from Newfoundland to Oporto in fourteen days. Notwithstanding the numbers of vessels sold out of this port, the fleet does not diminish, the shipyards being crowded with orders, and other orders being turned down every day. A very fine 350 ton tern schooner is being built for Captain Dawson Geldert, which expects to sail on June 1, 1916.

The steamer Tussle, has just been completed at this yard and is being fitted with machinery at Yarmouth. Nearly all of the steamers are being fitted with gasoline engines for hoisting gear. Several of them had these installed a few days ago, and the advantages being so manifold, practically all the fleet are being thus equipped.

The only schooner to have an auxiliary engine for power was the Original, Captain Conrad, which, engaged in winter fishing, was lost at Ingonish Ferry, becoming a total wreck. Her gear, etc., will be sold at auction here.

Cod oil is going to touch top notch prices before spring, it being expected that it will be quoted at Newfoundland at $160.00 a ton.

Among the schooners which settled their trips during the past week are the Delaware, Captain Cook, which paid a dividend of $4,800 for the season; the W. T. White, Captain Knock, with a dividend of $3,368, the Frances W. Smith, with $2,700, and the Lucille B. Creaser, with $3,264. It is expected that the former will have another thousand to her credit on her Oporto trip. The R. L. Borden, Captain Himmelman, gave $467.00 to each man for the season, and will give big profits to the shareholders.

The Marine Railway here has had its biggest year, particulars of which will be given through these columns later.

CHARLOTTETOWN, P.E.I.

(Special Correspondence.)

The smelt fishermen of Prince Edward Island are uniting with those of New Brunswick in asking the Dominion Government for an extension of the season, which closes February 15th, to February 25th. The reason given is that the unusually mild weather, has delayed the formation of ice on the rivers and bays, thus shortening the time of seining, as seines can only be operated to advantage through the ice. They also wish to take advantage of the spring tides, which are on between the 15th and the 25th. The frozen smelt business is a very important one on this Island, in the winter. The recent cold weather has tended to improve conditions, but the catch so far, is considerably short of what it was this time last year.

The season for hooking or using gill nets opened on October 15th, and for seines on December 15th. About the usual quantity of what are known as green or unfrozen smelts were shipped, but the great bulk of the fish are sent away frozen. Boxes and barrels are the packages used, the former generally having the preference.

This frozen smelt trade with the United States has been carried on here for fully 40 years, and boxes of smelts have always formed a very important part of the outward cargo of the winter steamers.

Summerside and Charlottetown are the two principal shipping ports for this commodity. The largest shippers from the former are James A. Morrison, of that place, and James England, of Travellers Rest. They handle the greater part of the catch from the rivers and bays of Prince County, mainly from Bedeque Bay, Richmond Bay and Enmore Rivers.

The smelts from Orwell Bay, North, East and West Rivers, and other waters in Queens and Kings County are mainly shipped by John McQuillan, of Charlottetown.

The latest returns available from the Government Blue Books show that in the past season 9,777 cwt., valued at $51.279, had been shipped from the Island. 242 cwt of frozen eels, valued at $2,258, were also shipped. The bulk of these were speared through the ice.

Since the winter set in, fishing operations on the Island have been confined almost entirely to smelts.

STONEY LAKERS ASK FOR FISH HATCHERY.

A deputation of Toronto residents who have their summer homes around Stoney Lake, near Peterborough, waited upon Hon. Finlay MacDiarmid and asked for a fish hatchery somewhere in the vicinity with a view to restocking the lakes in the district. The minister said the matter was under consideration, and next year there might be placed in these waters some fry from the hatchery at Brantford.

THE PACIFIC FISHERIES

(Special Correspondence.)

VANCOUVER, B.C.

The severe weather which has prevailed during practically the whole of December and the begininng of January, has forced the Gasoline Fishing Schooners sailing out of Seattle, Washington, to tie up for the Winter. The long waiting for fishing days and getting back to port in the face of a strong Southwest wind, together with poor trips, has shown both owners of the vessels and the fishermen that it is a waste of money to attempt to fish during the severe winter weather. The general sentiment is that it is a losing proposition to fish for halibut during the winter.

The Steamer Onward Ho, sailing out of Steveston,, B.C., recently had some little trouble with the customs authorities at Ketchikan. It appears that according to the United States Shipping Laws vessels entering or passing through the Territorial Waters of Alaska must call at Ketchikan to enter on the way North and must again call at Ketchikan on the way South to clear. The Onward Ho omitted to do this on her previous trip and on calling at Ketchikan on her last trip she was held by the Customs Authorities until the difficulty was straightened out.

The schooner Tom & Al recently put into Prince Rupert with 50,000 lbs. of Halibut. The best offer she could get at Prince Rupert for the fish was 5c per lb., which Capt. Gibson refused to take, and he proceeded to Seattle where his trip brought a little better than 6c per lb.

Mr. Bernhoff of Prince Rupert, representing the National & Independent Fisheries, and Mr. H. O. Roberts, of Prince Rupert, representing the San Juan Fishing & Packing Co., spent their Christmas holidays in Seattle, Washington.

Mr. T. H. Johnson, manager of The Canadian Fish & Cold Storage Company, Limited, returned to Prince Rupert a couple of days before Christmas, having been absent for two or three weeks on a visit to Southern Cities.

Most of the Halibut Fishing Fleet, of Vancouver, have been tied up for the winter. Amongst the vessels tied up are the Celestial Empire, Knickerbocker, Pescawha, Emma H., Carlotta G. Cox, and Kingfisher. All of these vessels are being overhauled more or less during their lay-up and will be in first class shape when they start fishing in the spring.

An addition has just been made to British Columbia's Fleet of Auxiliary Fishing Schooners. The schooner Annie St. Leon has just been completed by the Vancouver Ship Yards, and left at the end of December on her first trip. The Annie St. Leon will hold approximately 30,000 lbs. of fish. She will operate exclusively as a Long Line Fisherman in charge of Capt. Clarke, formerly of the Schooner Princess Victoria. She will deliver her catches to Vancouver or Prince Rupert, as opportunity offers.

Mr. Ed. Davidson, of the Davidson Fish Co., of Prince Rupert, B.C., returned home on the Princess Maquinna, after a short visit to Vancouver.

The first load of Herring delivered at Ketchikan during the present season reached that port on Dec. 28th, being brought in by the Schooner Margaret. The catch consisted of 41 tons, and the fish were of good sizes and in good condition. Capt. Thomas, who owns the Schooner Margaret expected to bring another 60 or 70 tons on his next trip.

The Columbia Cold Storage Company have taken in hand the overhauling and refitting of their Steamer Roman. She is expected to engage in the Halibut business again about the end of the present month.

Messrs. F. H. Cunningham and D. N. McIntyre, who are the British Columbia Members of the Fisheries Advisory Board, are leaving for Ottawa this month for the semi-annual meeting of the Board. Messrs. Cunningham and McIntyre will have with them a number of matters to bring before the Board relative to the betterment of fishing conditions generally on the Pacific Coast. One of the matters which has been brought vigorously to the attention of these gentlemen is the desirability and necessity of a Closed Season for Halibut during three months of the year. It is understod that they will place this matter before the Advisory Board with a view to having the Board bring it to the attention of the Government.

There has always been an impression amongst people on the Pacific Coast that there are "millions" to be made in the Halibut business, and every so often somebody lacking the necessary experience will put in a lot of money and purchase some expensive experience. A case of this sort was the old Royal City, which has just been dismantled and the hull scrapped, at Vancouver, B.C. Originally the Royal City was a torpedo boat destroyer which was discarded by the British Government some years ago and was then used as a tow boat on the Pacific Coast. In 1913, after she had been laid up for some time, someone got the idea that she would make a good halibut fisherman and purchased the hull, after the steam engines had been taken out. She was fitted up with a 75 horse-power gasoline engine, at an expense of about $6,000, and a complete halibut fishing outfit was supplied. On her first trip she broke down in the Gulf of Georgia, and after repairs were made she started on a second trip which only lasted until she reached Alert Bay. She was towed back and laid up until last month when her engine was taken out and the hull laid away. The original investment could not have been less than $10,000, of which the only return will be the junk price of the engine.

The European war has had at least one good effect on the fisheries of British Columbia. Up to the time the war broke out the United States was supplied with salted herring from Norway and other places in Northern Europe. This year the entire Norwegian pack of salt herring has gone to Germany where it commands a high price, and there has been none to spare for the United States market. It has always been known that there was a plentiful supply of large, fat herring to be obtained at Pender Harbor and other places in the Northern part of the Gulf of Georgia, but the salted product could not be put up at a price to compete with the Norwegian goods. The elimination of the European goods this year has, however, created a market, with the result that quite a large number of men commenced fishing for herring at Pender Harbor, selling their catches to salting companies which had established stations at that place. At one time as many as eighty boats were fishing. The fish caught were all of a good average size, running about 500 to the barrel. In the beginning the men got $20 per ton for all fish, but became dissatisfied with this and demanded more money. After considerable negotiation, and a short strike, the men and the salting companies finally came to terms and the price was raised to $22.50 per ton. The pack of herring to date is over 10,000 barrels, and the fish are still running well.

The salt herring industry of Alaska has also been benefitted by the European war situation, as there are a large number of salting companies in different parts of Alaska who are putting up packs for the United States markets. The packers do not anticipate any difficulty in getting good prices for their products.

PRINCE RUPERT NOTES

(Special Correspondence)

The year 1915 shows remarkable progress of the fishing industry as regards Prince Rupert. Notwithstanding the fact that official returns for 1914-15 show a decrease for British Columbia as a whole. Prince Rupert, especially during the last eight months has experienced a steady increase in all kinds of fish products handled.

The Cannery Pack for No. 2 District for 1915 according to returns received is 530.288 cases. The total pack for British Columbia was 1,133,381 cases, thus giving Northern B. C. the honour of contributing over 50 per cent of the total pack of British Columbia. Compared with the Fraser River pack of 289.199 cases, the Skeena River with 279,161 cases and the Naas River with 104,289 cases make an excellent showing.

The fact that the major benefit of this pack under present conditions does not accrue to the North, is detrimental to a certain extent as to the effect of a good year in this industry locally, but not as much as it might be as a good deal of the help employed is Indian, in fact 44 per cent of the labour employed is Indian, and they being resident in the North buy in the North. The major part of the white fishermen amounting to 15 per cent in the Cannery field, also are resident in the North, and buy in the North. The only labour that is foreign is the Chinese and Japanese amongst the actual fishermen.

The object of the recent concessions asked for as to the licensing question is to still further encourage the settlement of a permanent white fishing population in the North. The halibut trade employs 100 per cent white fishermen, and the effects of this on general business is remarked.

The canneries would find that the siding of the settlement of still larger white population, by conceding the white fishermen, a chance to fish on a remunerative basis would do much towards overcoming the antagonism that exists in relation to this industry.

The Halibut receipts for the year make an excellent showing, Prince Rupert has jumped from an average of 15 per cent of the total Pacific coast arrivals of halibut to 38 per cent. This increase as denoted in the annexed table is a steady one, and the effect of the privileges granted American vessels is marked.

An average of about 40 trips of American boats with cargoes have been made to the port each month, and is due solely to the fact that the strategic position of Prince Rupert attracts the trade.

The employment of totally white fishing population as regards this industry is also a pleasing feature.

Good progress has been made in the matter of the establishment of Herring curing and fish smoking plants, and the Prince Rupert cured herring is now on the New York market. Difficulty has been experienced this year owing to the fact that the Herring have not started to run in any quantity in the North. They are expected almost daily, and the preparations made for the taking of them point to a heavy catch.

Arrangements for permanent locations by several fishing firms from the South at the port this summer are said to have been arranged, and 1916 has all the earmarks of a prosperous year for the Northern Fishing Industry.

The Fishing Industry No. "2" District.

Prince Rupert B. C.

Fish caught in No. 2 District 1915. (Approximate).

	lbs.
Salmon	26,939,700
Cod	196,600
Herring	4,500,000
Mixed Fish	63,900
Shell Fish	37,800
Halibut	17,548,000
	49,286,000

Value approx. in green state $2,274,300 Salmon figures include Cannery receipts.

1914	lbs.
Salmon	23,355,500
Cod	1,108,200
Halibut	10,411,100
Herring	3,738,000
Mixed Fish	46,600
	37,612,100

Value approx. in green state $1,732,475.

Increase 1915 over 1914	$541,825
" 1915 over 1913	986,985

Cannery Pack

1915.	cases
Skeena River	279,161
Naas River	104,289
Rivers Inlet	146,838
Total No. 2 District	530,288
Outlying Districts	313,094
Fraser River District	289,199
	1,133,381

Note.—The major part of outlying districts is really from points nearer the northern centre than the South.

Capital investment in Fishing Industry No. 2 District	$4,475,079
Approx. value of Pack, 1915	4,883,961
Number of canneries	35
Number of Cold storage plants	35
Boats steam	41
Sailing Boats with power	99
Sail Boats	2,169
Approx. number of men employed in industry	3,950

(Of this about 2,500 are seasonal only.)

Nationalities.

Halibut Fishing	Whites	100%
Canneries	Whites	15%
	Japanese	6%
	Indians	44%
	Chinese	35%

	Per ton.
Cost of ice	$3.00
Cost of Bait	15.25

Cost of supplies practically the same as at other Pacific Coast points.

Average number of trips per month of American fishing Boats to Prince Rupert 40.

Prince Rupert's percentage of total receipts of Halibut at Pacific Coast points.

Month	1915.	1914.
January	29.3	6.4
February	20.6	17.5
March	21.7	4.4
April	14.8	14.5
May	19.2	21.0
June	27.2	19.4
July	33.7	15.0
August	39.3	11.2
September	33.4	10.3
October	31.0	13.6
November	38.0	14.6
December		21.8

Approx. receipts:—

	For eleven months.
Prince Rupert	17,548,000
xVancouver and the South	9,658,600
Seattle and other Am. ports.	32,556,178
1914.	
Prince Rupert	10,411,000
Total Canadian Receipts	15,956,800
Total American Receipts	48,902,575

---

xFor eleven months.

UTILIZATION OF FISH WASTE.

One of the problems that has long confronted the operators of fish canneries is how best to dispose of cannery waste. This waste is usually very heavy. In the case of humpback salmon, it has been stated that "the waste is from 40 per cent to 50 per cent of the round weight." The waste from the "red" salmon is rather less, but it constitutes a serious loss.

According to an estimate of the United States Department of Agriculture, the waste at the Pacific Coast canneries amounted to 140,210 tons in 1913 which, at values fixed by commercial operations, would amount to over two million dollars.

The products obtained from the reduction of the waste are fish scrap for fertilizer and fish oil. An average of several analyses of the raw waste from humpback salmon showed that it contained 3.02 per cent nitrogen, 3.46 per cent bone phosphate and 10.43 per cent of oil. At retail prices this would give a value of $20 a ton. It would seem desirable, therefore, to establish fish reduction plants in the neighborhood of the larger canneries to utilize the waste.

One difficulty, however, has been that the canning industry is carried on for only a short time each year, and, as the fish reduction plants are expensive, considerable capital would be kept idle during most of the year. On the Atlantic coast of the United States this handicap has been overcome largely by gathering in enormous quantities of menhaden, a species of herring, and converting these into fertilizer and oil. Near fifty factories, having a total invested capital of over $3,500,000, are engaged in this latter industry. In 1912, they produced 6,651,000 gallons of oil, valued at $1,551,990, and 88,520 tons of scrap valued at $2,138,165.

Again, the kelp resources of the Pacific coast, which are being investigated by Prof. Prince, are without doubt of great value, and may possibly be exploited to advantage by those operating the fish scrap industry. In any event, the utilization of fish waste will not be an entire success until the cost of the process of reduction is lowered, or means are found for keeping the plants in operation for longer periods each year. It is a field deserving close attention from those interested in Canada's fisheries.—A.D.

The "Fish and Shellfish Cannery Inspection Act" is to be introduced at the House of Commons, Ottawa, at this session of Parliament.

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Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, MARCH, 1916 No. 3

Fishing Boats at a B.C. Salmon Cannery

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ONTARIO
Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted —October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

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On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries
Of the Province of Quebec

DEPARTMENT OF THE NAVAL SERVICE

FISHERIES BRANCH

Lobster Fishery Fishing Seasons in Force on January 1st, 1916

Number of District	Limits	Fishing Season	Size
1	Charlotte County, N.B.	Nov. 15 to June 15	10½ inches
2	St. John County, N.B.	Nov. 15 to June 1st	9 inches
3	Albert County and Portion of Cumberland County, N.B., and King's and Annapolis Counties, N.S.	Jan. 15 to June 29	No Size Limit
4	Digby County	Jan 6 to June 15	No Size Limit
5	Yarmouth, Shelbourne, Queen's, Lunenburg, and that portion of Halifax county west of a line running S.S.E. from St. George's Island, Halifax Harbour, and Coinciding with Fairway buoys	Dec. 15 to May 30	No Size Limit
6	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including Chedabucto and St. Peters Bays and the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite	April 1 to June 20	No Size Limit
7	Remaining portion of Cape Breton Island, including St. Paul's Island, not covered by District No. 5	April 15 to July 15	No Size Limit
8	The Magdalen Islands, including Bird Rocks and Bryon Island	May 1 to July 20	No Size Limit
9	Waters of Northumberland Strait, between a line on the N.W. drawn from Chockfish River, N.B., to West Point., P.E.I., and a line on the S.E. drawn from the west side of River Philip channel at the mouth of the river, Nova Scotia, to the eastern entrance to Victoria Harbour, Queens County, Prince Edward Island	May 25 to Aug. 10	No Size Limit
10	On and along the portion of the coast or the waters thereof, of the Provinces of Nova Scotia, New Brunswick and Prince Edward Island, westwardly and northwardly, from the Lighthouse in Antigonish County, opposite Flat Point in Inverness County, Nova Scotia, to the northern boundary New Brunswick, including the coasts and waters thereof of all the islands adjacent to these portions of the coasts of the said Provinces as well as the coast and waters thereof of the Counties of Quebec south of River St. Lawrence, except those specified in No. 8	April 26 to June 25	No Size Limit
11	North of the Gulf and River St. Lawrence including Anticosti Island	May 20 to July 31	No Size Limit

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of the Naval Service is required.

Cases of canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

Canadian Fisheries Association

Honorary President:
HON. JOHN D. HAZEN, K.C., LL.D., M.P.
Minister of Marine and Fisheries.

President:
D. J. BYRNE, ESQ., Montreal.

Vice-Presidents:
S. Y. WILSON, ESQ., Halifax.
W. H. BARKER, ESQ., Vancouver.

Secretary-Treasurer:
F. WILLIAM WALLACE, ESQ., Montreal.

Objects of the Association

(a)—The protection of the interests of Vessel Owners, Fish Curers and Packers, Fish Merchants, Boat Owners, Fishermen and all persons directly engaged in the production and distribution of the Fishing Industry of Canada, and allied industries. The legal enforcement of their just claims, the due representation of their interests and requirements, the promotion or opposition for their benefit of legislative measures, and the promotion of a co-operative spirit among all engaged in Canada's Fishing Industry for their mutual benefit.

(b)—The securing of just and fair rates for the transportation of fish, the enforcement of prompt deliveries and the reduction of high rents and tolls.

(c)—The promotion of improvement in Fishing methods, curing, packing and transportation: also in harbour accommodation, navigational and other aids for Fishing.

(d)—The prevention of frauds upon and by those engaged in the several businesses mentioned in Clause (a) or any of them.

(e)—The collection and circulation of statistics or other information relating to the several businesses mentioned in Clause (a) or any of them.

(f)—The organization and dissemination of information of an educational nature among producers, distributors, retailers and consumers to the benefit of the Industry in general.

(g)—The Conservation and development of the Fishing Industry on commercial, scientific, and educational lines, and the consideration of all general questions which affect the interests of those engaged in the several businesses mentioned in Clause (a) or any of them, or which in any way relate to the Sea and Inland Fish Trade or Fisheries of Canada, and the carrying out of the decisions arrived at.

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(3)—Individual members, including fishermen and those who do not employ help, and who are interested in the fishing industry...$1 00

[Fill out and mail to Mr. F. WILLIAM WALLACE
Secretary-Treasurer, Canadian Fisheries Association, Room 600, Read Building, Montreal.]

Canadian Fisheries Association

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F. WILLIAM WALLACE
EDITOR

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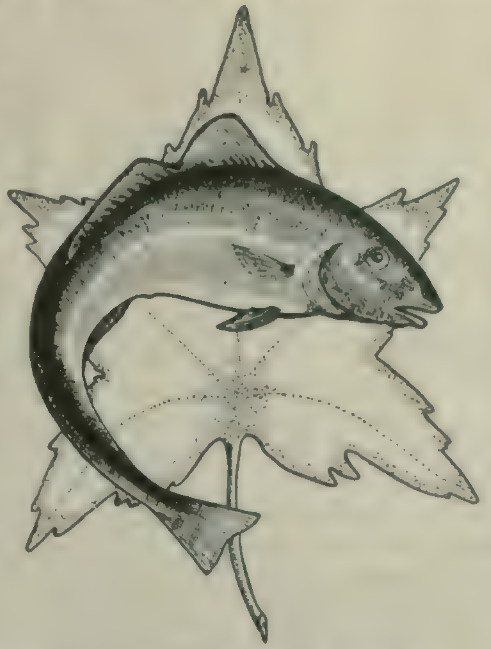

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Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, MARCH, 1916 No. 3

March Fish Day Calendar

1916			MARCH			1916
Sun.	Mon.	Tues.	Wed.	Thurs	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

CANADIAN FISHERIES ASSOCIATION.

A full report of the proceedings at the Annual Convention and Banquet of the Canadian Fisheries Association is published in this issue, and should make interesting reading for all members of Canada's Fishing Industry.

The Association is a year old this month on February 15th, to be exact. During that year, it has most undeniably taken its place in the Fishing Industry of the Dominion, and for a young Association, has had remarkable support. The work which has been undertaken by its Executive, has been of the greatest importance to the trade, and there is not a single member but realizes that fact.

During the year, the Association enrolled in its membership, representatives of practically all of the large firms doing business in the Fisheries of Canada today, and the interest which these gentlemen have shown in the work and objects of the Association have been most encouraging.

A review of the year's work shows, more than ever, the need for an Association, and the time of its establishment came none too soon. The present European War has been beneficial to the Canadian Fisheries and the Association was established at the psychological moment. It should have been established years ago, and if it had been so, it would have been able to play a still greater part in the exploiting of our Fishery wealth. As a newly established organization, our funds have been limited—a fact which militated against our going into any extensive schemes—and the work to be done has to be carried on very largely by a few public spirited men who take the time off from their businesses to do so.

This service on behalf of the Association and the Fisheries in general has been given by these gentlemen gladly, and the Industry owe very much to the unselfish efforts of such men as President D. J. Bryne, Vice-President S. Y. Wilson, Mr. A. H. Brittain, Mr. J. A. Paulhus, Mr. W. R. Spooner, Major Hugh A. Green, Mr. J. J. Harpell, and many others who have devoted more or less time to the Association's work.

The new scale of fees will, it is expected, bring in many new members. An application form is included in the present issue, and all who desire to become members and help along the good work so well begun, should enroll now. The C. F. A. is now firmly established! Enroll now and help in the big work which lies before us!

FEBRUARY 29th—A NATIONAL FISH DAY.

The idea of making February 29th, a National Canadian Fish Day, has taken shape in a most remarkable manner. The idea was originated by Mr. J. A. Paulhus, Chairman of the Publicity Committee of the Canadian Fisheries Association, and outlined fully in our last issue. Since then, Mr. Paulhus and the Association have set to work to promote the campaign, and at the present writing it is in full swing from Coast to Coast.

The scheme, as first mooted in the CANADIAN FISHERMAN, was reprinted into numerous magazines and dailies throughout the country. The Intercolonial Railway took it up and ran a reading notice regarding it in over ninety papers in Eastern Canada. The "Canadian Grocer" featured Fish Day in a special issue, and dozens of the big Canadian dailies are giving special prominence to fish and "the day"—some of them going so far as to devote a whole page to the scheme. Editorial references to Fish Day have been made in countless papers and journals throughout the Dominion, and the Association assisted by circularizing and distributing over thirty thousand specially designed posters all over Canada.

The distributors and retailers are doing their part and advertising heavily in papers which reach the consumer. Reports to hand show that Fish Day is well advertised in such big centres as Montreal, Toronto, Quebec, Ottawa, Winnipeg and Vancouver, and "fish is being put on the map" from Coast to Coast.

The value of Fish Day—or "Der Tag" as one piscatorial humourist calls it—lies not so much in the amount of fish that will be sold on February 29th, but in its advertising value. The attention of the possible consumer will be called to fish on that day, and the chances are that once having eaten it, they will eat it again. It is an introductory wedge and a good one, and being nation-wide, it will benefit the trade enormously.

Fish Day on February 29th is an assured success, and its after effects will be beneficial to the industry in general. Were it not for the Canadian Fisheries Association and the progressive spirit of its members, the scheme could never have been carried out. If you are not a member, join now.

FISH FOR THE CANADIAN TROOPS OVERSEAS.

Through the efforts of the C. F. A., and Major Hugh A. Green, Director for Saskatchewan, the Canadian soldiers in Great Britain and Flanders are to be supplied with Canadian fish. Major Green has been appointed by General Sir Sam Hughes as Director of Fish Supplies, Canadian Army Service Corps, attached to Headquarters in England. Officers have been appointed to assist him, and arrangements have been made to supply the fish from Canadian producers.

Contracts have been made by the War Purchasing Commission, with fish producers in British Columbia, the Middle West, the Great Lakes, and the Maritime Provinces to supply 75,000 pounds of fresh frozen halibut, whitefish, cod, haddock, soles, and smoked kippers, finnan haddie and fillets, weekly. Space has been reserved for cold storage accommodation on liners weekly for the first four weeks, and shipments are now being made.

This move is a splendid one for the Canadian fisheries. The soldier who eats Canadian fish in England or Flanders, will eat it when he returns home. The introduction of our Canadian fish in Great Britain in this manner opens possible markets, and it is first class advertising all round. It is to be hoped that difficulties in transportation facilities will not crop up, and that the fish will land in good shape. We have enough confidence in Major Green's ability to make the scheme go if the fish is in good condition when landed at the camps.

Here's hoping that good luck follows him, and that the scheme will be a great success.

THE HON. J. D. HAZEN'S SPEECH.

The speech of the Hon. J. D. Hazen, Minister of Marine & Fisheries, at the Anniversary Banquet of the Association, is worthy of special mention. This is one of the finest addresses on Canada's fisheries and fishing industry ever made by any Minister before or since, and should be read with due regard to the authoritative source from whence it comes.

No greater tribute to the importance and value of the Canadian Fisheries Association can be made than a reference to the fact that the Minister and the principal members of his Department came down specially from Ottawa to attend the Anniversary Banquet. The speeches made by the Minister and his associates are of great interest to the fish trade of this country, and one and all show a keen appreciation of the objects of the Canadian Fisheries Association, and the work it is endeavoring to do. We are glad to be able to publish them in extenso, and we trust that the present issue of the CANADIAN FISHERMAN will serve as a record worthy of preservation as the First Annual Report of the Canadian Fisheries Association.

FINNAN HADDIES.

Referring to the article on "Good and Bad Smoked Haddies" in the last issue of the "Canadian Fisherman," Professor Prince writes: "I have received several communications on the matter of splitting haddocks for curing as finnan haddies, and implying that in Scotland these are universally split dorsally, but this is not so, though the researches of Miss Patterson at the Biological Station show that fish so split, with the additional vertebral cut, are better preserved.

In the detailed report which is near completion, the quesion of splitting down the back or otherwise, is more fully treated than in the preliminary report, of which you published a synopsis. .

A summary of this more lengthy report will, I opine, appear in your columns in due course."

PISCATORIAL PARAGRAPHS.

It is a peculiar thing that the regrettable fire at Ottawa should have occurred while the Members were engaged in a discussion on fish. Mr. Jamieson, M.P. for Digby, N.S., raised the question as to what occasioned the discrepancy in prices paid the fishermen and prices charged the consumer on fish from the Maritime Provinces. Several members from fishing constituencies were engaged in the discussion—Mr. F. B. McCurdy, Shelburne; Mr. J. H. Sinclair, Guysborough; Mr. A. K. McLean, Halifax; Mr. D. F. McKenzie, Cape Breton; Mr. W. S. Loggie, Chatham, and the late Mr. B. B. Law, Yarmouth. Mr. Loggie was speaking on the subject when the Chief Doorkeeper of the House of Commons rushed in at 9 p.m. and called out, "There is a big fire in the reading room; everybody get out quickly!" The session broke up without formality, and the fire gained headway and destroyed the building. Mr. Law's death came as a great shock to his constituency. Our Yarmouth correspondent writes in this issue a paragraph concerning this estimable gentleman who died shortly after speaking on a subject which means so much to Yarmouth County and the people he represented.

The fishing interests of the United States are much concerned over what is known as the Cary Bill to be introduced at the present session of Congress. The Bill is to prevent the sale or transportation, interstate or foreign, of food which has been held in cold storage for more than three months. The passage of this Bill would mean that fish of any kind, fresh, salted, pickled, frozen, or manufactured products could only be kept in storage for three months, and after that it could not be sold or transported for sale either in the U. S. or abroad. Such a Bill would be most harmful to the consuming public. It would increase the cost of fish to the consumer at times when fresh fish is scarce, and practically destroy the fish business for merchant and fisherman. Where some legislators get their ideas from, beats the Dutch! If every sage-brush Senator or Congressman, or our own Parliamentarians, with a "bee in his bonnet" was allowed to pass the harmful Bills they create, the country would be at sixes and sevens all the time. Let us hope that our brethren across the line succeed in squashing this ridiculous move. If it were not for the cold storage in the fish business, certain lines of fish would become as expensive as strawberries in January.

Major Hugh A. Green appeared at the Association Banquet attired in the garb of Old Gaul. Major "Hughie" is a strapping young fellow, and carries the kilt and plaid well. The Major is also a good singer an' verra Scotch. His Lauder songs are good, but President Byrne, who claims Hibernian ancestry, vows he'll never forgive Hughie for attempting to sing an Irish song attired in the kilt. Major Green left for England two weeks ago to take up his duties as Director of Fish Supplies. To the Editor he remarked: "I'll gie the boys their fush even if I have tae wheel it up tae the trenches in a wheel-barra!" For the work to be done in the distribution of fish to the Canadian troops overseas, no abler man than Mr. Green could have been selected. He is an enthusiast in the business and a man of action. We wish him every success.

Mr. Cowie's address to the Members of the Canadian Fisheries Association is published in this issue, and should prove of interest to those engaged or intending to engage in the packing of herring for market. The barrel is one of the most important items in connection with this particular trade, and Mr. Welsford L. Watt, of Halifax, representing the London and Petrolia Barrel Company of London, Ont., informs us that he is stocking up on the regulation hardwood herring and mackerel barrels to supply the demand. The barrel manufactured by his company is a first class article "made in Canada," constructed of hardwood and galvanized iron hooped, and made in barrels and half-barrels. This barrel was first introduced in Nova Scotia in the fall of 1914, and six carloads were sold. In 1915 the sales amounted to 65 carloads, and Mr. Watt expects to double this in 1916. Good fish, good cure, and good barrels are the three essentials to good prices, and don't fall down on the barrels!

Members of the Association can procure a sterling silver button-hole pin by remitting the cost—52 cents —to the Secretary. The maple leaf is enamelled in colours and a neatly designed fish in silver has been soldered upon the leaf. The first batch of fifty ordered have been sold out, but on receipt of sufficient orders, the Secretary will have more made, and forwarded to those remitting. The pin or badge is a really beautiful thing.

Our contemporary, the Pacific Fisherman, has produced a splendid Year Book for the Pacific Fisheries. The cover is a work of art in green, pink and gold, while the reading matter is of absorbing interest. The whole get-up of the book—paper, illustrations and articles—is first class, and we compliment the Editorial Staff of the Pacific Fisherman for the production of a fine piece of work all round. It is worthy of the time, study and expense which we feel sure has been put into it. Mr. John N. Cobb is the Editor, and he opens the book with an admirable article on Pacific Coast fishing methods—an article which shows that he has a fine practical, as well as a historical, knowledge of his subject.

The Enquiry into Fish Prices instituted by Mr. Clarence Jameson, M.P. for Digby, and which was the subject of discussion in Parliament when the fire occurred, is now being held in Ottawa. The first session opened on Monday, February 21st, and wholesalers, retailers and producers are being called to attend and give evidence.

Desperate weather has been reigning on the Pacific Coast, and in this number we reproduce a photo of the New England Fishing Company's steamer "New England," as she arrived in Vancouver from the Alaska halibut grounds. She was so heavily iced up at one time that it was feared she would capsize with the weight of ice on her decks. The fishing steamer "Onward Ho," of the B. C. Packers' Association, Steveston, is overdue on an Alaska halibut trip, and it is feared that she is lost. Fishing vessels working the grounds in the Gulf of Alaska have a hard coast to work along. The only shelter harbour is Yakutat, and the coast for two or three hundred miles is practically unlighted. The recent weather on the Pacific shows that our Atlantic fishermen are not the only ones to experience the hardships of cold weather and icing-up.

BETTER SYSTEM OF TRANSPORTATION OF OF FISH URGED.

Ottawa, Feb. 21.— The Marine and Fisheries Committee to-day considered the problem of how to supply better fish at less cost to inland consumers, Clarence Jamieson, of Digby, presided, and there were present H. A. Brittain, of the Maritime Fish Corporation, of Montreal; F. T. James, of Toronto; D. J. Byrne, president of the Canadian Fisheries Association, and W. Found, Superintendent of Fisheries.

The majority of the witnesses thought a better system of transportation from Atlantic points should be provided. Under present conditions it was stated the rates were not only high, but there was a depreciation of twenty-five per cent in the weight of the fish when it reached the consumers.

Three suggestions were made: First, the inauguration of peddler car services on carload and through rates, with the right to open the cars and take out a portion of the contents at various points in transit; second, the establishment of model fish markets by the Government for demonstration purposes to show how to prevent depreciation; and third, the popularizing of the fish industry through demonstration kitchens at fairs and at various points the year round.

LAKE ERIE FISHERMEN'S ASSOCIATION.

The Lake Erie Fishermen have formed an Association. The inaugural meeting was held on February 10th at St. Thomas, Ont.

Officers were elected as follows: Honorary President, Hon. G. F. Macdiarmid, Minister of Public Works; President, A. E. Ponsford, St. Thomas; First Vice-President, A. E. Crewe, Ridgetown; Second Vice-President, Chas. Ross, Dunnville; Executive Committee—Thomas Shippey, James Pastorius, A. Hoover, N. S. Cornell, Andrew Graham, Bert Clay, B. Westcott, A. S. Brown, W. Bates, F. W. Moss, E. Koehler, H. Hales, J. H. Declint, S. A. Van Order and F. B. Hodgson; Secretary-Treasurer, Charles Finlay, Port Stanley.

Addresses were given by Hon. Findlay G. Macdiarmid, Minister of Public Works; Dr. Jaques, M.P.P. for Haldimand, and Prof. Downing, of the United States hatchery at Put-in-Bay, Ohio.

Resolutions were offered asking the Ontario Government to give better protection to the fish industry, suggestions being that at least three revenue cutters, instead of one, be used to protect the lake to prevent illegal fishing, and that at least three hatcheries be located on the lake. The resolutions were finally referred to a committee, which will make recommendations at to-morrow's session, when it is also expected that the dispute between gill and pound net fishermen, that has been causing much trouble, will be aired.

COMMISSIONER AUDETTE'S REPORT ON PELAGIC SEALING QUESTION.

The Pelagic Sealing question,—or the Behring Sea question, as it was generally known in earlier years,—has finally reached its last phase.

This question definitely arose in 1886 when the United States revenue cutter "Corwin" seized in Behring sea many miles from land, the British Sealing schooners "Carolena", "Thornton" and "Onward", and also warned out of that sea, the British sealing schooner "Favorite". There had been murmurings of pending difficulties before this date.

The United States fur seal herds have their rookeries or breeding grounds on the Pribylof Islands, Behring sea, which are a portion of Alaska and which became United States territory with the mainland of Alaska, in 1867. On the approach of winter, the seals leave the Islands and start in a journey southward and go as far as the coast of southern California, which they reach usually in January. They then turn and start backwards to the Islands which they reach in May and June and haul out theron for breeding purposes. During their pilgrimage in the sea they could readily be taken by the pelagic or deep sea sealers using spears or guns and operating mainly in small boats in connection with schooners.

Following the purchase of Alaska, the United States leased the exclusive right of sealing on the Islands to a company. When the demand for seal skins began to grow, Pelagic sealers began their operations and the United States, anxious to protect their lessees, endeavoured to prevent such. They claimed that Behring sea was **mare clausum,** one half of it being United States territory, and the other half that of Russia, and it was on this ground that the above seizures were made.

Notwithstanding protests from Great Britain, seizures were continued in 1887, 1889 and 1890. In all, 19 British vessels were seized.

THE CANADIAN FISHERES ASSOCIATION IS THE BIGGEST ASSOCIATION IN CANADA'S COMMERCIAL FISHERIES TO-DAY. JOIN IT AND HELP MAKE IT BIGGER STILL.

Finally in 1892, a Treaty was entered into with the United States agreeing to submit the question to arbitration. The arbitration was held at Paris in 1893, and resulted in the upholding of the British contention, and as a consequence, the United States were required to pay damages for the wrongful seizures it had made, the amount of which were fixed at $473,151.26.

With a view to affording the seals proper protection, the arbitrators drew up what have since been known as the Paris Award Regulations. Under these regulations, no pelagic sealing was allowed during the months of May, June and July in each year; firearms were prohibited in Behring sea and their use in the Pacific ocean was restricted to shot guns.

It was thought at the time by the United States that these regulations would result in so crippling pelagic sealing as to make it impossible to successfully carry it on, but such did not prove to be the case. Indeed, the biggest catch of seals ever made by pelagic sealers was in 1894, the first year of the Paris Award Regulations. As a consequence, the United States still agitated for some measures which would further embarrass the operations of the Pelagic sealers. Great Britain steadfastly refused such, maintaining that the Paris Award Regulations placed even greater restrictions on their operations than they could well stand.

The question became further complicated in 1902, when Japanese pelagic sealers entered the field, as Japan was not a party to the Paris Award Regulations, and, consequently, its vessels might carry on sealing during the close season and in Behring sea, shot guns and rifles might be used right up to the three mile limit of the United States territory.

Meantime, the seals harrassed by sea and killed on land, were rapidly decreasing in numbers, and it became obvious that all concerned that unless some effective protective measures were taken which would be shared by all the countries interested, sealing industry would in a few years become commercially exhausted.

After protracted negotiations, a treaty was agreed with the United States on the 7th February, 1911, providing for the cessation of pelagic sealing for fifteen years on condition that the other sealing countries intersted, — Russia and Japan, — would also agree to such prohibition.

Following this treaty, a convention of representatives of the four nations was held at Washington, and a treaty was agreed to on the 7th July, 1911, providing for a cession of pelagic sealing in the North Pacific ocean for a period of 15 years from the 15th December of that year. Under the treaty, Great Britain receives 15 per cent of the seal skins taken on the Pribylof Islands each year, 15 per cent of those taken on the Russian Seal Islands and 10 per cent of those taken on the Japanese Seal Islands.

Immediately following this Treaty, claims for compensation from those who considered themselves damified by the treaty, began to be received. Not only were claims submitted by the owners, masters, crews and hunters of sealing vessels which were being operated when the treaty became effective, but from the owners of vessels which had previously been used in sealing but which had been laid up for some years; from sealers who operated in the South Atlantic, but who might also extend their work to the North Pacific, and from sealers and others who considered themselves put out of the business by the Paris Award Regulations.

In order to intelligently determine to whom compensation should be paid and what amounts they should receive, it was deceided by the Governement to appoint a commissioner to thoroughly investigate the matter. On the 10th June, 1913, Honourable L. A. Audette, Assistant Judge of the Exchequer Court, was appointed such commissioner.

His report, which is quite voluminous, was handed to the Minister of the Naval Service a few days ago. It shows that hearings were held at Victoria, British Columbia, Halifax and Sydney, Nova Scotia, and Ottawa. 1605 claims were submitted to him, the total amount of which was somewhat over $9,200,000. The Commissioner divides the claims into five classes, viz:

(a) Those arising prior to the Paris Award Regulations, 1894.

(b) Claims by sealers who never sealed in the North Pacific.

(c) Claims following the Paris Award Regulations.

(d) Claims owing to the Pelagic Sealing Treaty of 1911.

(e) Various claims of none of the above classes.

The Commissioner finds that the only persons entitled to compensation are those who were engaged in sealing up to the time of the Treaty of 1911, and the owners of the vessels, and in certain instances a few sealers who, owing to illness or otherwise were unable to engage in their calling in 1911.

The compensation awarded, amounts in all to $60,663.75. It is made up as follows:—

Owners of vessels receive the value of the vessels and retain them.

Masters and hunters receive the amount of the previous year's earnings as far as such could be ascertained.

Seamen on lay receive 70 per cent of the previous year's earnings as far as such could be ascertained.

Indian hunters receive 50 per cent of the previous year's earnings.

The cooks on pelagic sealing vessels are not compensated, as it was found that their calling was not interfered with by the stopping of pelagic sealing.

The reasons for the Indians receiving a smaller percentage than the seamen is that Article 4 of the Treaty provides that they may still carry on sealing in canoes. This was the original method of sealing by the Indians, and as the herds again increase in numbers such sealing will become very profitable to the Indians.

ELECTRIC BAIT FOR NIGHT FISHING.

Having noticed that certain game fish, particularly the bass and muskellunge, often contain glow worms and other phosphorescent insects, an inventor has devised an unique electrically-illuminated bait for either deep water trolling or night fishing. The bait is made of celluloid, in the form of a minnow, and containing a miniature electric lamp which is supplied with current through fine copper wires carried along the fish line. The light may be flashed on or off by means of a push putton, making the bait resemble a glow worm if desired.

ANNUAL CONVENTION

OF THE

Canadian Fisheries Association

Held in the WINDSOR
HOTEL, MONTREAL,
on MONDAY, January
Thirty-First, Nineteen
Hundred and Sixteen

MORNING SESSION—10.00 a.m.—Registration of Members.
10.30 a.m.—Annual Meeting and Reports of Committees.
12.30 p.m.—Adjourned for Lunch, and Inspection of Messrs. Stanfords, Limited, New Store.
AFTERNOON SESSION— 2.00 p.m.—Continuation of Association Business.
4.00 p.m.—Address on Packing of Herring, by Mr. J. J. Cowie.
6.00 p.m.—Adjourned.
ANNIVERSARY BANQUET— 7.30 p.m.

MORNING SESSION.

After the registration of members, the President called the meeting to order at 10.30 a.m. The Secretary read out the minutes of the previous Annual Meeting held at Ottawa, on February 15th, 1915, and same was duly moved to be adopted as read.

The President then rose and read his report on the work of the Association to date. Following him came Mr. A. H. Brittain with his report as Chairman of the Transportation Committee, and Mr. J. A. Paulhus, with the report of the Publicity Committee. The reports are as follows:

PRESIDENT'S ANNUAL REPORT.

(MR. D. J. BYRNE.)

Gentlemen and Members of the Canadian Fisheries' Association:

The activities of the Association, since its formation last February, have confirmed more than ever the need of such an organization in the Fishing Industry of Canada. We have not been able to do any very great work as this, the first year of our existence, has been largely a year of organization, of building up and making ourselves and our objects known among the trade. Until the formation of Branch Offices of the Association, our membership is at present, with the exception of the Nova Scotia Branch, limited to the heads of firms engaged in the Industry throughout Canada. In this, we have been fortunate in enlisting as members some sixty or seventy gentlemen who represent the bulk of the concerns doing business in the Fishing Industry of Canada to-day.

Our Membership Roll may not be large in numbers, but judged by the amount of capital which we represent invested in the Fisheries, we stand as the most powerful and influential organization in the Industry to-day. Plans are at present under discussion for the formation of Branch Associations in various centres with a scale of fees to suit all grades of those in the Industry from fisherman, fish worker, small retailer, to the large wholesaler, producer and distributor. This will have the effect of largely extending our activities; of enlarging our membership in numbers; of increasing our finances, and taking care of the problems which crop up in the localities in which the Branches are located.

Mr. D. J. Byrne, President Canadian Fisheries Association.

Branches.

A good commencement in this direction has been made by the Nova Scotia members of the Association and last summer saw the successful formation of the Nova Scotia Branch of the Canadian Fisheries Association with headquarters at Halifax. Several adjustments are necessary with regard to the By-Laws, Scale of Fees, and relationship to the parent Association in connection with the Nova Scotia Branch, and this will, we hope, be satisfactorily concluded at this session. Mr. S. Y. Wilson is

Secretary of the Nova Scotia Branch and he will outline the work done up to the present.

When our Secretary (Mr. Wallace) was out on the Pacific Coast last summer, he conferred with the fish men of Prince Rupert and Vancouver with reference to the formation of Branches of the Association. The industry in Prince Rupert were enthusiastic and at a meeting of the Fisheries Department of their Board of Trade they informed Mr. Wallace of their willingness to form a Branch of the Association for Northern British Columbia. In Vancouver, Mr. Wallace was present at a special meeting of local fish men and Members of the Association and at this session a Committee was formed, with Mr. A. L. Hager, of the Canadian Fishing Company, Ltd., as Chairman, to promote the formation of a local Branch of the Association.

The Wholesale Fish Dealers Association of Vancouver have expressed a desire to affiliate with us, but the whole question of Branch Associations has been held in abeyance pending a general meeting of the Association to re-draft By-Laws, Scale of Fees, etc., suitable to the formation of Branches. This work will be undertaken at the present session and when concluded, we will thus be in a position to go ahead with the establishment of Branches of the Association. The question of forming a local Branch in Montreal has also been discussed and this will be formed as soon as the necessary regulations, etc., have been framed.

Work of the Association.

Through our official organ, the "Canadian Fisherman," the activities of the Association from time to time have been reported. During the short period we have been in existence, the Secretary and myself have written nearly eight hundred letters and some sixty telegrams which have been despatched to members and others in connection with matters handled by the Association.

One of the most important matters taken up by the Association was in collecting and shipping samples of Canadian fish to Great Britain. On August 1st, the Department of Trade and Commerce of Canada received a communication from the Colonial Secretary of Great Britain, Mr. A. Bonar Law, to find out what Canada could do in the way of supplying fish to alleviate the scarcity of sea foods in British markets owing to the war. Sir George E. Foster referred the matter to the Association and we held a meeting on August 3rd to look into the question. Telegrams and letters were sent to the directors and members of the trade all over Canada and the secretary collected statistics as to the kinds of fish we could supply and the estimated production. At the request of Sir George E. Foster, your President, the Secretary and two or three members of the Association proceeded to Ottawa and had an interview with the Minister of Trade and Commerce. At this meeting, we furnished the Minister with the information we had collected and the same was sent to the Colonial Secretary in Great Britain. At Sir George Foster's suggestion, the Association collected, from its members, a number of samples of fresh frozen, smoked and cured fish and these were forwarded per the SS. Corsican in October to the Department of Agriculture and Fisheries, London, and exhibited to the British fish trade.

At the interview, your President suggested to Sir George that a Commission of practical fish men from the Dominion be sent across to Great Britain to investigate the possibilities of the fish trade there with Canada, but the suggestion has not been acted upon.

We have received an official report on the samples forwarded and on the whole they turned out highly satisfactory and we understand that business has resulted from the work which we undertook. (Report published in this issue.)

Fish for Soldiers.

The Association took up the question of supplying fish to the soldiers in training and concentration camps throughout Canada early in 1915. We wrote the Militia authorities and the Minister of Marine and Fisheries on this matter urging that the Militia Regulations be amended to include fish in the soldier's rations. We could not get this done, but we were successful in having a special order issued by Sir Sam Hughes in which soldiers could be supplied with fish if they desired it. As a result of this, fish dealers throughout Canada were enabled to cater to the camps and barracks and fish is now a permanent ration in the soldier's menu. Through our efforts and those of our Director, Major Hugh A. Green of Saskatoon, fish has been very prominently brought before the Militia Department and we take pleasure in announcing that Sir Sam Hughes has appointed Mr. Green to the position of Major in th Army Service Corps for the purpose of supplying fish to our soldiers in England and France. This fish will be purchased in Canada and distributed to the troops by Major Green and his staff.

Alaska Salmon for British Army and Navy.

It was also brought to the attention of the Association that the Imperial authorities were supplying Alaska salmon to the Army and Navy, and discriminating against the British Columbia product. The Association took this matter up with the Minister of Fisheries, Hon. J. D. Hazen, and he immediately cabled Great Britain, through the Secretary of State, Sir Joseph Pope, the grounds of our complaint. We have not, as yet, heard if beneficial results have accrued, but we are inclined to think that owing to the strong representations made by the Association, the matter will be adjusted satisfactorily. If not, we are ready to pursue the matter still further.

The work of a most important branch of the Association's activities, the Transportation Committee, will be reported by Mr. A. H. Brittain, Chairman of the Committee. I understand he has some important communications to make on the subject of transportation of fish. Another important department of our Association, the Editorial and Publicity Committee will be reported upon by Mr. J. A. Paulhus, Chairman of the Committee.

The Association has done a large amount of good work in answering enquiries from foreign firms requesting information as to sources of supply. We have also drawn the attention of the Federal and Provincial Fisheries Departments to wrongful enforcements of the law, and other work for the protection of our members. Your President has had the honor of representing the Association at the Fisheries Day of the Canadian National Exhibition held in Toronto last September and the Association Executive were invited as guests to the Exhibition Direction's luncheon in company with the Hon. J. D. Hazen, Minister of Fisheries and Federal and Provncial officials. I also had the honor, as President of the Association, to appear before the Commission of Conservation recently, and deliver an address upon certain problems in connection with the fish trade which is being embodied in the forthcoming report of the Commission.

The pioneer work of the Association to date has, in my opinion, fully justified its existence. We have emerged from the embryo stage and have now become a solid and representative organization recognized by the Government and the Industry as the Association of the interests engaged in the commercial exploitation of Canada's' Fisheries. We have laid the foundation for greater efforts and extended influence, and the future promises well. Our work has been restricted owing to limited finances, and our Secretary-Treasurer has guarded the Treasury well. I am pleased to say that his Report will show a substantial balance on the right side.

Under his jurisdiction, the Association has had a particularly fine Membership Certificate engraved. This has been framed for the Members at a reasonable cost and is being furnished free to all who are members of the Association. Our Official Organ, the Canadian Fisherman, of which the Secretary-Treasurer is Editor, has done its part in giving proper publicity to the doings of the Association and in stimulating enthusiasm in its purposes.

By an unanimous vote of the Association members, your President, the Directors and Executive, were elected to remain in office for another year in order to adequately carry out the work we have begun.

In closing, allow me to extend my very sincere thanks to the Executive Committee for their whole-hearted enthusiasm in the work which they have taken up and their unselfishness in leaving their businesses to attend meetings in Montreal, Ottawa and Toronto. The Chairmen of the Transportation and Publicity Committee also deserve special commendation for their efforts in behalf of the Association throughout the year.

D. J. BYRNE,
President.

REPORT OF THE TRANSPORTATION COMMITTEE.

(Mr. A. H. BRITTAIN.)

The work of the Transportation Committee for the season just closed, has, naturally, been of a limited character, largely owing to the fact that the Association was not thoroughly organized, and it necessitated a volume of individual work, some of which has been handled through the Transportation Committee, but the fact of your Association having a Transportation Committee has, we believe, been of considerable value and importance to the Fish Trade in general.

Your Chairman was asked to represent the Fishing Industry at the Eastern Freight Rate hearing, held in Ottawa, and appeared before the Board of Railway Commissioners on two different occasions and pointed out many injustices which the railways contemplated making on the Fish business in general, and particularly in reference to the Arbitraries East of Montreal, and I do not think it would be out of place at the present time to include in this report a copy of a letter your Chairman wrote to the Secretary of the Board of Railway Commissioners on this important subject:

Transportation Committee Report.

"With regard to the discussion which is taking place before the Board, re proposed advance in rates on Fish from the Maritime Provinces to points in Quebec and Ontario, I have been advised that it is proposed to increase the class rates on this commodity from St. John, N.B., to Montreal, on the fifth class basis from 27 to 29 cents per hundred pounds, and that it is also proposed to increase the arbitraries to Montreal, used for making through rates to points West on fifth class, 4 cents per 100 pounds.

"I further understand that permission has been asked to increase the fifth class West of Montreal one cent per 100 pounds. This, if allowed, will make the advance on fish in carloads from St. John 5 cents, Halifax 6 cents, and Mulgrave 8 cents per 100 pounds.

"Prior to August 6th, 1914, the Fish business was carried from the Maritime Provinces to points in Ontario and Quebec under commodity tariff I.C.R., G.B.O. 1, C.P.R., S-1645, C.R.C., E-2048, and was divided into three groups, namely—fresh fish, fish, canned, salted, dried and smoked, in bundles, boxes, drums and barrels, and pickled fish.

"On that date the Canadian Pacific Railway cancelled their tariff E-1645, C.R.C., E-2048 by tariff E-2455, C.R.C., E-2828. The latter tariff publishes commodity rates on fish, fresh or frozen, on a much higher basis than formerly. As an illustration, our rate under tariff S.R.C. E-2048 from St. John to Toronto on fish, fresh or frozen, was 28 cents per hundred pounds. The present rate is 32 cents per hundred pounds. This same tariff cancels the commodity rates on other kinds of fish so that since August 6th last we have been paying the regular fifth class rate, which is an advance of 6 cents per hundred pounds over the rate formerly in effect. If, therefore, the application is allowed there will be a further advance of five cents per hundred pounds.

Mr A. H. Brittain, Chairman Transportation Committee.

"With regard to pickled fish, the advance effective August 6th was 7 cents per hundred pounds. This, with what is now proposed means a total advance of 12 cents per hundred pounds.

At the time this increase of 5 per cent on the General Tariff, based on the Montreal rates, was made on the

Eastern Freight Rates proposition, the railway companies were in a very bad condition generally, caused by the European War, and we felt that an increase of 5 per cent was more or less justified, but as you will have noted from the letter just quoted, in addition to this 5 per cent increase on the Montreal Arbitraries, it was proposed to increase the rates East of Montreal, which accounts for the considerable increase the railways expected to derive from the Fish business. It will be seen that prior to August, 1914, the fish business from the Maritime Provinces was carried on a Commodity basis, which, we believe is the proper basis for Fish foods, which is naturally an article of food for the poorer classes of people, and we cannot see that any good reason can be brought forth to have the fish business remain on a class basis. By lifting the Fish business from a commodity tariff to a class basis, it means that the Fish business has to stand an increase in rates.

Another item of special interest to shippers from the Maritime Provinces through to the Pacific Coast on the Transcontinental Tariffs, is the question of the mixing privilege, which the railway companies had not granted the shippers, and through the efforts of your Committee, arrangements were finally made whereby mixed carloads of fish could be shipped through to the Pacific Coast on a minimum carload basis of 24,000 lbs., at a rate of $1.58 per 100 lbs., whereas the old tariff on frozen fish carried a straight rate of $2.01 per 100 lbs. minimum carload 30,000 lbs. To illustrate this case in more detail, when a shipper had a carload of smoked fish to ship to the Coast the rate which is in effect at the present time—$1.10—from Halifax, did not give the privilege to the shipper, of mixing frozen fish with his shipment, unless they paid the frozen fish rate which, at that time was $2.01. As it stands at the present time, shippers from the Maritime Provinces, can mix these different kinds of Fish and have the benefit of a rate of $1.58 on a minimum car of 24,000 lbs., which is a reduction of 53c per 100 lbs., and the minimum carload weight has been reduced from 30,000 lbs. to 24,000 lbs. Some concessions had to be made to the railway companies to get these mixing privileges. Considering the low rate on straight carloads of smoked fish from, say Halifax to the Pacific Coast, of $1.10 per 100 lbs. the railways demanded that the minimum carload weight be increased from 30,000 lbs. to 36,000 lbs. The Transportation Companies naturally figure on certain earnings and where the rate is reduced, they, in many cases, endeavor to increase the minimum to enable them to make the necessary reduction on rates of different classes of product.

I think it may be of interest to your members to know that the Commodity Tariffs are usually based on higher minimum carload weights than on the class weights.

Another question of considerable importance to shippers of Carloads of Halibut from the Pacific Coast to Winnipeg, Toronto, Montreal, and other points where carloads have been going forward to, was the notification from the express companies interested that on and after January 16th the express companies would not include cartage service on the rates in effect. This question was brought before the Executive of the Association, and a resolution passed referring the matter to the Transportation Committee, with full power to take such action as was necessary in connection therewith. Your Committee are pleased to be able to announce that they have been successful in having the new Tariff which was to be C. R. C. 1686 cancelled, pending a hearing by your Committee before the Board of Railway Commissioners which, we understand, will come up some time in February. This question is not only of great interest to the Jobbers, but also to the distributors throughout Canada. A circular letter was issued to the members interested, asking them to submit whatever reasons they had to protest against the discontinuation of this cartage service, and while some communications have already been received, there are still a number of interested parties to hear from, and it is hoped that those who are interested, and have not already submitted their reasons, will do so without delay, as your Committee should have as complete information on the subject as possible, as there is no doubt that the express companies will be prepared to defend the position they have taken, not only with strong facts, but with statements as to practices elsewhere, particularly in the United States.

Government Assistance.

The Department of Naval Service, through their Fisheries Branch, agreed to subsidize a special fast freight service, leaving the Maritime Provinces on Mondays and Thursdays, by guaranteeing to the Canadian Government Railways earnings on 10,000 pounds and taking care of the icing charges on these shipments, and while your Committee have not accurate information on this matter, we are led to believe that the service has not been used as freely as it might be, and your Members, particularly in the Maritime Provinces are urged to give every assistance they possibly can to make this service a success. Your Committee, through its Chairman, is glad to announce that with a view to getting the tonnage on this special service, the Canadian Government Railways have agreed to allow through shipments to Montreal and points West to be included in these cars, thereby saving considerable delay in transit, as all L. C. L. shipments, destined to points West of Montreal, were carried previously by way freight and were very much delayed. In addition to this service the Canadian Government Railways are also carrying L. C. L. shipments from Montreal and points West of Montreal on Saturday of each week, leaving the Coast, thereby assuring shippers of L. C. L. lots to Montreal and point West a fast freight service. The question of continuing this service for shipments West of Montreal when the warm weather sets in, is one which has not yet been decided upon, as no arrangements have as yet been made to take care of shipments which would be handed over from the Canadian Government Railways at Montreal. to connecting roads.

Your Committee feel that a great deal can still be done by the Transportation Companies to facilitate shipments of Fish throughout Canada, not only in regard to rates, but especially in reference to service. The express service offered by the Companies at the present time from the Maritime Provinces Westbound, is anything but encouraging, as there is no way in which shippers of fresh or mildly cured fish, in the summer time, can send forward their consignments in other than ordinary baggage cars, which, in the summer months are hot, and in the winter months are heated by steam, thereby making the service unsatisfactory both in summer and winter. It is suggested that express cars be partly fitted up at one end to handle perishable fish, and that expressions of opinion should be submitted to your Committee as to the most feasible way in which this matter could be handled.

Before closing this report, the Canadian Fisheries Association do not wish to show any disposition whatever on this part to be unfair or unjust to the railways of this Country, or to ask for conditions which are unreasonable and unjust. It should be the aim of the Association to work as much as possible in harmony with the railways, as more can be derived from working in conjunction with the Transportation companies than by antagonizing them or making unreasonable reports. Your Chairman would like to suggest that in the case of the Transportation and other important committees, especially the Transportation Committee, the Chairman should, after serving his term, remain a member of the Transportation Committee, for say two consecutive years following. It is hardly necessary to emphasize the advantages of this, as the Chairman of one of these important committees, who has studied the questions involved carefully, would be of material assistance in aiding the new Committee elected from year to year.

Let me further add in conclusion that the Transportation Committee is very much indebted to Mr. J. E. Walsh, manager of the Transportation Department of the Canadian Manufacturers' Association, of which your Chairman is a member, for valuable assistance rendered, and to say that if some arrangement could be made whereby the Transportation Committee of this Association would work closely in touch with the Transportation Committee of hte C. M. A. that much good would result; all of which, is respectfully submitted.

ALFRED H. BRITTAIN,
Chairman Transportation Committee.

REPORT OF THE PUBLICITY COMMITTEE.

(Mr. J. A. PAULHUS.)

It affords me much pleasure to submit the work and activities of the Editorial and Publicity Committee for the past year. Though the immediate results are not what we might have expected, the committee is satisfied, however, that through the efforts of each one of its members the cause of the Fish Industry has advanced one step in the right direction, and with a continuance of the same methods the objective should be realized.

At the inaugural meeting held in Ottawa last winter the chairman of this committee read a paper which had a great distribution all over the country. It was a complete treatise as to how the fish industry should be carried on in the Dominion. The press was quite interested in this paper and I will cite a few daily papers and periodicals which commented on it most favorably: the Gazette, the Daily Mail, the Canadian Grocer, the New York Fishing Gazette, La Presse, La Patrie, Le Prix Courant.

In some of these papers the article was published in extenso, and in some others had the privilege of the columns of the editorial page. This article had also the honor of being placed in the records of the Association by the wish of the President of the Association.

Next in importance, a little later, a supplement entitled "Industrial and Educational Supplement," was distributed as follows: 26,000 to the various Provincial and the Federal Governments, and 14,000 to different schools of the country, and of these numbers 8,000 were published in French. Our committee, under the guidance of Mr. J. J. Harpell, and with the help of some individuals and firms interested in the fish business, expects very good material results from this publication. It will fill a want which has been long felt — the knowledge of the natural history of fish in our schools. Experience proves that very little is known of the species, of the habitat and of the value of our fish by the average citizen of this country.

Under date May 19th, 1915, our official organ published an article from the pen of the chairman of our committee entitled: "How to handle fish during the summer months." This contained a few practical hints to the fish retailers and was written in a strain which should prove beneficial to the fish retail trade.

On September 24th the Canadian Grocer, under the heading—"Hints on selling oysters," has the following: "Among those who espoused the cause of the oyster was J. A. Paulhus of Montreal, whose able pen is not a little responsible for re-organizing this industry."

"Some reasons for the small consumption of Fish in Canada," was the next article that was published by the chairman of the Publicity Committee in the Canadian Fisherman in the month of October. This article had been prepared for the National Exhibition at Toronto, to be read at one of the meetings of the Association. For some reasons is was not heard. The writer received many congratulations on this article, particularly from one of the best friends of the Association on the Transportation business. He comments on it in this way—"You have certainly hit the nail right on the head."

Mr. J. A. Paulhus, Chairman Publicity Committee.

La Patrie translated the whole article into French in its number of October 20th last. The Montreal Herald also published same in extenso in its number of October 25th, and the "Canadian Grocer" on the 3rd of December, under the title, "Increasing our Fish Consumption," published the same discourse with a few note in the headlines.

The official organ of the Association under date december, also published a letter from Mr. Paulhaus in the Forum columns, regarding "The Federal and Provincial Laws Conflict."

"A Fish Day" is the innovation presented by the chairman in the official number of February. This is too recent for press comments. It is to be noted, however, that the New York Fishing Gazette and the Canadian Grocer have taken notice and complimented the author on the idea, and the latter paper is so interested that it will publish a special Fish number to help out this innovation. (*See Editorial in this Issue.*)

The above will give an idea of what has been done by this committee during the past year.

As I said at the beginning of the report, we have not had much result yet, but I believe sincerely that the work we have accomplished is a proof that the Publicity Committee has a large field for its activities and will prove its usefulness more concretely in the years to come.

It is our intention during next year to carry on the business of the committee on about the same lines. The committee has faith in the innovation of a Fish Day, and its continuance yearly, and will do its utmost to give it widest publicity.

I may mention the valuable collaboration of Mr. J. J. Harpell, and particularly his co-operation in publishing and distributing the Industrial Supplement. Mr. F. J. Hayward has also contributed a few short items and generously offered his services at the formation of the Committee. On account of being far away it has not been convenient to make use of his offers as much as we should have liked, but this coming year we shall have him to help us with more contributions to our Editorial Department.

And last but not least, I shall not forget to give due praise to the talent and ability of Mr. F. W. Wallace. He is a literary man and an artist of great value not only to the Editorial and Publicity Committee, but to the whole Association. His articles in the Canadian Fisherman are not only full of interest, but they have certain suggestion of romance and poetry, and there is a tang of the sea in his fishing expeditions which makes one like the story and the author. I thank him most sincerely for the generous support and help he has given me, and with his companionship I feel that the duty and responsibility as Chairman of the Editorial and Publicity Committee is a pleasure.

J. A. PAULHUS,
Chairman.

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After some discussion, it was moved that the reports be adopted as read, and the members were unanimous in complimenting the work of the gentlemen who so ably administered the Committees over which they presided, and a hearty vote of thanks was made to them. It was felt by all present that the Association had done splendid work since its inauguration, and its future as a real help to the Fishing Industry of Canada was assured.

The meeting was adjourned until the afternoon, and the members accepted the invitation of Mr. J. S. Stanford, of Stanford's, Ltd., Montreal, to visit his new store on Mansfield Street.

Visit to Stanford's, Ltd.

This palatial store occupying a three storey building on Mansfield Street, Montreal, is the last word in design and construction for a concern dealing in fish, game, poultry, meats, fruits and vegetables. Architecturally, the place is artistic and handsome in design; mechanicaly, there is nothing like it in Canada. The walls and floors are tiled; counters are of marble and glass, and refrigeration pipes have been laid under the show cases everywhere. The fish department is equipped with cleaning tables of marble and galvanized iron, with running water over sinks, where fish are dressed and filleted. Chutes and a transit system has been arranged to carry the fish orders from the dressing department to the shipping room, where they are wrapped or packed for delivery, and everything has been designed to facilitate rapid handling, and the strictest cleanliness. The premises are equipped in the most modern way in lighting and sanitation, and a full power plant for refrigeration machinery has been installed. Cold storage chambers, chill rooms, and a delicatessen kitchen occupy a large portion of the establishment. In the latter apartment, Mr. Stanford had a tasty lunch laid out for the visitors, and before leaving for the Hotel again, the Association complimented Mr. Stanford very highly for the magnificent manner in which he had led the way to put the retail end of the fish business upon a properly handled and sanitary plane. Mr. Stanford replied that he would be willing and glad to show any person interested over his place and outline his system for handling fish. Other fish men would be welcome to inspect his premises, and in his opinion, this was the proper spirit, and the object of the Association of which he was a member. The exchange of ideas on the improvement in facilities for handling fish would benefit him as much as it would his competitor. It would tend to increase the consumption of fish as a food, and all concerned in the trade would enjoy the increased business.

Afternoon Session.

The afternoon session convened at 2 p.m., and the main business centred on the framing of By-Laws for Branches of the Association. This, and the drawing up of a new scale of fees designed to enrol the smaller dealers, and individuals engaged in the fish trade and industry of Canada, occupied the attention of the members for the rest of the meeting. The By-Law, as passed and adopted, may be had from the Secretary of the Association. The new Scale of Fees which goes into effect immediately, is as follows:

Scale of Annual Membership Fees.

The first member, the principal of any firm, partnership or corporation carrying on a business in Canada under his or its own name, and a business which gives employment to help of any kind $10

Additional representatives from the same firm or corporation $3

Individual members, including fishermen and those who do not employ help, and who are interested in the Fishing Industry of Canada $1

It was felt by the members present that the new scale of fees would encourage the fishermen and small dealers to become members of the Association and enjoy its privileges. The arrangement for additional representatives of large firms would bring in many new members interested in the work and objects of the Association.

Some minor business occupied the attention of the members until 4 p.m., when the President declared the Annual Meeting adjourned, and called upon Mr. J. J. Cowie, Fisheries Expert of the Department at Ottawa, to address the members. Mr. Cowie's address is reported herewith.

Packing Canadian Herring for Foreign Markets

Address Delivered by Mr. J. J. Cowie, at the Afternoon Session of the Canadian Fisheries Association.

Mr. Cowie: Mr. President and Members of The Canadian Fisheries Association:—I am extremely pleased to be present with you this afternoon, and feel highly honoured indeed at being asked to address you. Your time is, I understand, limited, and for that reason I shall not take up much of it.

In view of the very great interest that is being taken at present in the matter of supplying the United States markets with Canadian herring, cured in the Scottish method, and of the extensive preparations that are going forward, especially in Nova Scotia, for engaging in this business next season, I propose to touch briefly on one or two points connected therewith.

Mr. J. J. Cowie, Fish Curing Expert of the Department of Marine and Fisheries.

My first point is the making of the barrel. Now, those who intend curing for this trade, that is, those who expect to derive the largest possible advantage and benefit from it, must market their fish in a barrel similar in size and type to that used in the Scottish trade, or in the British Isles. I shall not detain you in the meantime by going into the details of measurements of staves and heading necessary to produce a barrel of the Scottish standard size, because a pamphlet containing special instructions and information of this nature is at present in the hands of the printer, and will be issued shortly to the trade.

There is no doubt that the ideal barrel for marketing pickled fish of any kind in is the hardwood barrel. Such a barrel, of course, may be difficult to get in some provinces or districts. It also at the beginning, or when new, would be expensive. It would have the advantage on the other hand of being available for refilling, or using another season. That is, of course, a rather doubtful advantage.

Now, in the export trade of the British Islands, spruce staves entirely are used in the making of the barrels. The staves are cut from the finest spruce grown in Sweden, and the greatest care is taken in the making of the barrels. There is no reason why spruce staves of equal quality to those used in this British trade should not be easily obtained in Canada.

But, no matter how good the wood is, if the barrel is not properly put together, it will ultimately leak like a sieve. Three things therefore must be strongly impressed upon those of our coopers who intend to make barrels for this particular trade.

The first thing is that staves must be cut from the soundest and best wood, and should not be taken from the mill unless they are of such quality.

The second is, that such staves should be well seasoned before being put into the barrel; and the third thing is that careful workmanship and clean cutting tools are absolutely necessary, to produce a barrel of the requisite strength and tightness.

My next point is the taking of the fish. With the enormous demand that is likely to arise, and that will arise next season for fresh herring, I fear that our present means of capture, namely moored or anchored nets near the shore will not provide a sufficient supply to meet this demand. Moreover, these moored nets are left in the water day and night and it sometimes happens that the fishermen, through stress of weather, is prevented from visiting and overhauling the nets for a day or two, with the result that when he goes out he finds live herring gilled in the course of the preceding night mixed up with dead, or what are called sometimes drowned herring, that may have been gilled two days previously. Now, these drowned herring will not cure properly at all. They simply cannot be hardened in the salt, and unless the greatest care is exercised in separating these drowned fish from the fresh fish, a packer may find a large part of his cure altogether unsaleable. I do not think that a general change in the present method of fishing for herring may be expected for some time yet, but I would direct the attention of those of you who are in the business, or are contemplating going into the business next season, to the method of fishing known as drifting.

Now, by this means herring can be got off shore much earlier in the season, and in better condition, than when they have moved close to the shore in the right stage for spawning. Then, as drift nets are hauled out of the water every morning, and kept on board the vessel till the following evening, there is absolutely no danger of getting drowned herring mixed with the fresh ones.

Then, whatever method of fishing is put into use, my own opinion is the mesh of the net used should be smaller, for this reason, that this trade, especially in the United States, prefers a medium plump fish. Now, there are so many of our nets at present in use with meshes of 2½, 2¾ to 3 inches that they miss a great many of that size of herring that is actually in demand in the United States. I would therefore suggest to those who are preparing for this business next year, to keep in mind the fact that they can very much increase their supplies and get a more suitable class of fish by using a smaller mesh net. There is an article of mine in the current issue of THE CANADIAN FISHERMAN which deals very fully with this matter, and so I shall pass on to my next point.

But before doing so, I would like to say in connection with the selling and buying of fresh herring on the coast, that in my opinion an Association such as yours, might very well take up the question of instituting a standard measure for such. A barrel is a clumsy measure. Besides, barrels of various sizes are at present in use, which, to say the least, is not at all satisfactory to either the seller or the buyer.

In England and Scotland a very serviceable, strongly made wicker basket is used for this purpose. It holds roughly about one hundred pounds of fresh herring. Such baskets have been in use for a very long time. Previously to twenty years ago they were made without any Government supervision, with the result that the capacity of the baskets differed greatly. The curers in those days supplied them to the fishermen, and I have seen myself baskets of such a size put into use by unscrupulous curers as gave them 15 per cent at the very least, of an advantage over curers whose baskets were nearer to the recognized standard. Much dissatisfaction was expressed by both fishermen and curers at this practice. Consequently, the Government and officially stamped with the Crown brand before stepped in and now every basket must be measured it can be used in the purchase or sale of fresh herring to the United Kingdom, or rather in England and Scotland.

My next point is the curing of the fish. Personally, I am exceedingly glad to find that the work of curing in the Scottish style will be carried on largely by merchant curers on shore. This is, in my opinion, the only way that the industry can be extended and made permanent. Fishermen will get more for their fresh catches, and, being relieved of the labour of curing, they will be in a position to very much increase their catching power. With this greatly increased demand there is going to be for fresh herring, those merchants who deal with, or who take part in the West India trade, may have fears of not getting a sufficient supply for that trade next year. I do not think, however, that this new business, or this new demand, will interfere very much with that cheaper West India trade, because, for one thing, we have hundreds of thousands of barrels of herring going to waste every spring along the shores of the Gulf of the St. Lawrence, which could be very well utilized for this West India trade. Then towards the end of the season there will be quantities of herring after they have spawned that will be unfit for this higher class trade with the United States, and which will be available for the West India trade, so that I do not see how, if those West Indian Merchants will adapt themselves to the changed conditions, I do not see how their trade can be very much affected by this new and better trade.

Now, I wish to mention in passing that a complete description of the Scottish method of curing, forms an appendix to the regulations made under the Fish Inspection Act, and will be found printed and published with that Act, and if curers will closely and intelligently follow that description, there can be no doubt about their producing an article in accordance with the desires of the market. That description deals absolutely with what are known as full fish. Now, there is another class of herring which can be secured from the south shore of Nova Scotia especially, and which is known as Matjes. That is an absolutely fat herring of medium size, without roe or milt in it, or before it has developed roe or milt. Now, this is the class of herring that secures the top prices in the United States. Quantities of these herring sold during the past year for as much as $13.00 and $14.00 per half barrel. It may seem incredible, but the fact remains, they have been sold for these prices, these matjes, and that class of herring is not inspected and branded in Scotland as the full fish are, for this reason, that they are cured very mildly, and of course the chance of their going wrong is so much greater than in the case of the hard cured full fish that the Government has never considered it wise to brand or guarantee those lightly cured matjes. They have always been marketed without any inspection and branding, and when properly cured there has never been any difficulty about getting enormous prices. For the same reason we have not included them in our branding scheme, but in the course of the next month or so it is intended to publish a complete description of the curing of these matjes as well as further instructions and hints in the curing of full fish.

In connection with curing for this trade, I wish to utter a note of warning. So many stories, wild and otherwise, have been circulated as to the price paid last season for herring cured in the Scottish style that many people who know absolutely nothing about this business, are likely to be induced to go into it in the coming season. Now, the United States market for herring so cured, is an extremely particular and fastidious one, and while it is prepared to pay very big prices for the right article, it is just as ready to completely ignore anything that is not up to the usual standard. So, you see there are possibilities of losing a lot of money as well as making some, in this business.

Then again, with so many inexperienced packers at work we are in danger of having much badly cured stuff placed on the market, with the result that we may lose our hold on it altogether when the war is over, and conditions return to normal in Europe. That would be a tremendous calamity now that our herring

A MAN IS KNOWN BY THE INTEREST HE TAKES IN HIS OWN PARTICULAR INDUSTRY.
JOIN THE ASSOCIATION AND ASSIST IN THE DEVELOPMENT OF CANADA'S FISHERIES.

have been accepted by this high priced trade, and we have got an entrance to this market. This has been, of course, an exceptional opportunity. It never occurred before, and may never occur again. It will be the business of the Department to try and prevent this trade from being swamped by having a flood of badly cured stuff on the market next year.

We have in our Fish Inspection Act a splendid means of safeguarding this business, if it is taken advantage of, and the Department is taking active steps to place itself in a position next season to guide and instruct both coopers and packers in the methods therein laid down.

A highly trained Scottish cooper and curer has been added to the staff of pickled fish inspectors. He will be equipped with tools and will visit cooper shops right away, especially those where Scottish barrels are being made, spending a day or so in each, and making sample barrels in the presence of the cooper. During the curing season he will act as an instructor, giving his attention chiefly to those places where Scottish curing is going on. We will also inspect and brand the cured fish. Then I shall of course be on the coast most of the summer myself, and take an active part in the work.

Now a word as to the salt mackerel business. The Norwegian mackerel trade with the United States has been created within quite recent years. Yet, although it came into existence very much later than the Canadian and Irish trades, it leads the way so far as demand and price are concerned. It has not grown to its present extent in any haphazard way, but is the result of intelligent and deliberate efforts. There is no reason why our salt mackerel should not bring as good a price as Norwegian mackerel. The quality of our full fish is as good as theirs. In fact, I was told recently by one of the largest buyers of salt mackerel in the United States that the full mackerel ,taken in the Gulf and round Cape Breton, are actually superior in quality and flavour to the Norwegian product.

The hardwood barrel, with galvanized hoops now being used by many of our packers, is superior to the barrel used either by the Norwegian or Irish packers. But much remains to be done in the matter of improved splitting, grading and packing of the fish.

The Norwegians have one advantage over us in that their fish are caught by hook and line, and split, washed, and put in salt a few minutes after being taken from the water. That is the fish that they sell and ship to market. They have a big spring fishery, in which they use nets, seines, and drag seines and so on, but these fish are used largely in the fresh state in Europe. The split fish that they send to the United States are taken by hook and line. Now, these fish, as I say, are split, washed and put in salt a few minutes after being taken from the water. The bleeding is thus perfect, and the fish, when cured, are white in colour.

Notwithstanding that advantage that they have over us in the way of handling their fish quickly, our Inspection Act is calculated to so improve the splitting, grading and curing that together with the superior barrel now being used, by its use through the means of this inspection, we shall secure for Canadian fish prices equal to that paid for Norwegian fish. But inspection and grading under the Act is voluntary. For that reason the enthusiastic co-operation of all concerned is needed to bring it into general use. In the next few weeks steps will be taken to bring directly to the attention of the United States buyers of pickled fish what this brand will exactly mean to them, and to the consumers, as a guarantee of quality, and you may depend on it that these buyers next season, appreciating the value of such a Government stamp, will be on the lookout for goods that show it. Keeping in mind therefore the making of the new Scottish cured herring business a permanent one, and of improving our mackerel business, I would, in conclusion, appeal very earnestly to the members of this Association and the trade generally, to take full advantage of our inspection scheme next season. Competent men will carry out the work of inspection and branding which is entirely free of charge to the packer and curer.

As I said before, I came with the intention of simply touching on a few points connected with this business, for the reason that I previously mentioned, that special and detailed instructions will be issued shortly to the trade. I do not know that I need say anything further. Of course, if there are any questions anyone would care to ask, I should be very pleased to answer them, and if there are any suggestions to be made by any of those present I shall also be pleased to hear them, with regard to the carrying out of the work of inspection and branding in the course of next year.

Gentlemen, I thank you for the patient hearing you have given to the few remarks I have made.

The President: We have all listened with very deep interest to the address of Mr. Cowie, and it is my pleasure to assure him they were appreciated, and that we appreciate his coming here to deliver an address on such a timely topic as the proper curing under the Scotch process of our Canadian herring and mackerel. I do not think there is any doubt but that a large market is available for Canadian packers in these two kinds of fish, especially in the herring, and it is unquestioned that we have nobody either here, or even on the other side who is in a better position to give definite expert information and knowledge on the methods of packing than Mr. Cowie, who has spent a lifetime in the fish curing business in Scotland, and whose services have been secured by the Canadian Government for the benefit of those engaged in the fishing industry in Canada.

I want to thank you, Mr. Cowie for having come to deliver this address before our members, and to assure you that out past good opinion of you has been still further enhanced. We like to hear from you often and hope the future will bring you frequently in our midst. I remember with pleasure the statement made by the Honorable the Minister of Naval Service at our banquet last year, when he said we would be gladly furnished with information by the experts connected with his department at any time we required it. I have had occasion to meet Mr. Cowie before, and I have always found him not only willing, but most eager to help disseminate the knowledge that is his to a very large degree in the expert curing of fish for export shipment. I am sure our members are very much interested, and the knowledge he has given us today when given out through the medium of our official organ, THE CANADIAN FISHERMAN, will reach a large number who will read it with much pleasure and profit.

I am sure some of our members who have been listening intently to Mr. Cowie's address would like to ask some questions, and since he has told us he would be glad to answer any questions that might be asked by you, or he would be glad to hear from you should you desire to have further knowledge on his opinion on any matter connected with the subject of his address this afternoon. If you will ask any question I am sure Mr. Cowie will answer it. If no one has any questions, I will ask Mr. Wilson to say a few words on the subject.

MR. WILSON: I can only supplement your remarks Mr. President, in a very very limited degree. This is a matter that comes pretty close to me personally, because it is one of the things I advocated fifteen or sixteen years ago.

In opening up or beginning a new industry there is bound to be more or less errors and mistakes made, and even in the experiments there was something of that done; that is, efforts at production were made where there was no herring to be got, and other times they got more than they could take care of.

Now, the transportation question in the fish business has a material bearing, and unfortunately some shipments at that time were destroyed through the want of transportation facilities, and transportation was attempted in packages absolutely unsuitable for it, and of course it was a failure. However, the past season has demonstrated the fact it is easily possible to cure Canadian herring in the Scottish method in first class style, and condition. Quite a few have been put up, and I know personally of quite a number of the samples sent over which have been eminently satisfactory. Of course that cannot be said of all, because in some cases samples were sent forward which should not have gone, and criticism resulted. But none of the samples were branded or inspected by Inspectors of the Department. In fact, I do not know that any of the parcels sent forward during the past season were inspected, but a good many of the samples put up were eminently satisfactory, and brought remunerative prices.

The present opportunity is a golden one for the herring fishery of the Maritime Provinces, and if properly taken care of a great many more fish will likely be cured in the Scotch method in the coming season than in the past.

The increase in the value of the fishery on the West Newfoundland coast I spoke of this morning is entirely due to the fact that these fish were put up in the Scottish method. The value of the fish were increased by at least 250 per cent. The production of herring in Canada is limited only by the amount of effort put forth in the catch. As Mr. Cowie said there would be no trouble to get any amount of inferior herring for the West India trade if attended to at the proper time. The early catch is not very good, in the early stages of the season, but later on a good many of the fish can be put up in the Scottish style owing to the superior quality of the summer catch, sufficiently good to be marketable at a very much enhanced price, and I know of one firm which has contracted for five thousand barrels of the same type and quality as the Scotch barrel, another firm for 2,500, and of course it is reported many more have done the same thing, I do not know just to what extent, but in all probability there will be during the coming season not less than twenty-five or thirty thousand barrels of herring cured in that method for export.

The demand for Scotch cured fish in the Canadian market is very limited, but I think it can be materially increased at the prices at which these fish can be easily sold to be profitable.

The run of fish of which Mr. Cowie spoke as being suitable, the matjes, can be only obtained in June, that is previously to the filling of the fish at the end of July and August.

Another thing in connection with the August and September fish, they are all large. I do not think the reduction of the mesh for catching by net would make very much difference in the size of the run of herring, no more than they would catch all of the small, and probably not all of the large. But we find that the run of fish coming to the shore as they do, to deposit their spawn, where they have been taken in seines and traps, the average has run between 90 and 100 pounds per 100 count. So that I do not think it would make any great difference in what we term our last fall fishing in August and September. After that, along the coast of Nova Scotia the average size is only about fifty pounds per 100 count.

The standard measure has to be dealt with, and I think it would be very timely for the Government to step in just now. Any barrel is used as a standard size now. A fish barrel may be something to contain 21 to 26 or 27 gallons, and sometimes a flour barrel is used, which would be a little more. It is unsatisfactory in this way, that a man purchasing at so much per barrel may get 24 or 25 gallons, and another 25 or 26, and it is unsatisfactory to the fisherman in the same way. In Newfoundland they overcome that difficulty by establishing a standard type which must bear the Government brand, and that is the standard by which fish are bought and sold. I am not absolutely sure, but I think it contains 16 gallons, so that they get for a barrel of herring 32 gallons of fish as they are taken from the water.

Another effort has been made principally by the Nova Scotia branch to get some of the salt importers to import 'second fishery'' salt, that is, the salt used almost entirely by the Scottish packers in Scotland, and I think mainly on the English coast as well, although they use Cadiz and Iviza in some instances on the English coast, but the Scotch pack is practically all taken care of and cured by ''second fishery'' salt.

The Halifax importers of salt have agreed to bring in a quantity of that, and samples were due in Halifax on Saturday. The steamer had not arrived, but was due then, so that a beginning has been made, and those that are interested in this, I think, will use every effort they can to bring about a standardization in regard to it, and a very much improved article. While the trade will have to pay a little more for it in the long run it will be cheaper, because they will take care of their fish, and have the original brine that they can give the purchaser a proper article, whereas now it is hardly possible.

I would like to add to your appreciation, Mr. President, my own, and to thank Mr. Cowie for his address to us to-day, which was very instructive and very important.

The President: Is there any other gentleman present who wishes to ask questions in connection with this address? We shall all look forward with great interest to the publishing of the papers you have mentioned, and I am sure your efforts, Mr. Cowie, on behalf of this particular branch of the industry will result in decided improvement in the curing, and also in increased values and output of our Canadian fisheries, and that is the object of our Association.

Anniversary Banquet :: :: Canadian Fisheries Association

Windsor Hotel,
Montreal
Jan. 31, 1916

After the business sessions of the Association, the members gathered again at 7.30 p.m. in the Oak Banqueting Room of the Windsor Hotel—there to have the pleasure of dining with friends and listening to the speeches of distinguished guests. The tables were tastefully laid out, and the specially designed Association menu card enumerated an epicurean bill of fare, in which fish was prominent. For the second time in the history of the Canadian Fishing Industry, the trade foregathered around the festive board, and the spirit of fraternal bonhomie ran high. There was nothing conventional or restrictive about it. Everybody was in great good humour; conversation was racy and brilliant, and each table rang with the laughter and jokes of the little parties who sat around them.

The spirit of the Association was manifest; competitors became as bosom friends, and the cares of business were forgotten as each guest appreciated the good-fellowship of his neighbour. The Association's principle "to promote a co-operative spirit among all engaged in Canada's fishing industry for their mutual benefit" was never better exemplified, and one felt as he gazed over the merry gathering, that the whole thing was worth while. The same idea animated the guests, and many of them afterwards expressed the opinion that they would not have missed the Convention for a thousand dollars.

The guests of the Association who sat down at President Byrne's table were the Hon. John Douglas Hazen, Minister of Marine & Fisheries; Mr. G. J. Desbarats, Deputy Minister; Dr. E. E. Prince, Commissioner of Fisheries; Mr. W. A. Found, Superintendent of Fisheries; Mr. J. J. Cowie, Fisheries Expert of the Department; and Mr. E. T. D. Chambers, representing the Fisheries Department of the Province of Quebec; Mr. S. Dufault, Deputy Minister of Fisheries for Quebec; Mr. A. Sherriff, Deputy Minister of Fisheries for Ontario, and Mr. A. D. McIntyre, Deputy Commissioner of Fisheries for British Columbia, sent their regrets at being unable to attend owing to pressure of departmental business. Among the Association members present were Mr. D. J. Byrne, Montreal; Mr. S. Y. Wilson, Halifax; Mr. A. Boutilier, Halifax; Mr. Percy Boutilier, Port Hawkesbury; Mr. R. T. Matthews, Queensport; Mr. Emery Lapointe, Ottawa; Mr. Moses Lapointe, Ottawa; Mr. T. W. C. Binns, Ottawa; Mr. D. Montreuil, Quebec; Mr. A. H. Brittain, Montreal; Mr. J. A. Paulhus, Montreal; Mr. W. R. Spooner, Montreal; Mr. Jos. O'Connor, Montreal; Mr. A. McKenna, Montreal; Mr. J. S. Stanford, Montreal; Mr. H. A. Letourneau, Montreal; Mr. Arthur Briere, Montreal; Mr. S. T. Reeves, Montreal; Mr. C. H. Earle, Montreal; Mr. H. G. Connor, Montreal; Major H. A. Green, Saskatoon; Mr. H. Welham, Montreal; Mr. F. W. Wallace, Montreal; Mr. J. J. Harpell, Montreal; Mr. J. A. Beaudry, Montreal; Mr. J. C. Ross, Montreal; Mr. E. S. Bates, Montreal; Mr. J. J. Lomax, Montreal; Mr. S. Sturgeon, Montreal; Mr. J. Fyon, Montreal; Mr. W. H. Dunn, Montreal; Col. Wm. Molson Macpherson, Quebec; Mr. Edmond Brossard, K.C., Montreal; Lieut. Foley, C. E. F., Montreal; Lieut. Neville, C. E. F., Halifax; Mr. J. Rice, Montreal; Mr. Russell Hodge, Montreal; Mr. Walter Lambert, A.M.I.N.A., Montreal; Mr. Chas. Naylor, Montreal; and representatives of the daily press. Owing to the prevalence of "La Grippe" several of the out of town members, laid down by it, were unable to attend, which accounted in a very large way for the absence of many of the Association's most enthusiastic supporters.

When the good things on the menu had been partaken of and the coffee and cigars made their appearance, the President arose and introduced the guests of the evening—opening with the toast of "The King."

THE PRESIDENT (Mr. D. J. Byrne): Gentlemen, I am very glad to be able to welcome you to the first annual banquet of the Canadian Wisheries Association, and especially to bid a welcome to our guest of honor, the Honorable Mr. Hazen, Minister of the Naval Service.

Many of you gentlemen, who were at the banquet at Ottawa last year, will remember that the Honourable Minister of the Naval Service graced that occasion with his presence, and we are very pleased to have him with us this evening, and it shows the great interest that he has in this industry, that he should come down from Ottawa while the House is in Session, and he is such a busy man, to be with us this evening.

I want to assure the Honourable Minister that we appreciate his coming down here this evening, and also to assure him that the members of this Association have at heart the interests of the industry which we represent, and the Department over which he so ably presides.

During the past year, which has been rather in the nature of an inaugural year, we have done a great deal towards perfecting the organization of our Association, and while our membership is not so large as it will be eventually, we have, we claim, amongst the membership, practically all the large producers and distributors in the fishing industry of the Dominion of Canada. Our membership extends from Coast to Coast, and also includes those who are engaged in the fishing industry at the Great Lakes, so that we may safely claim to represent the fishing industry as a whole.

It is not my wish to address you this evening, because you will be favoured by speeches from other gentlemen who have graced the occasion by becoming our guests, and from the Minister of Naval Service.

I would, therefore, ask you to arise and drink with me the Royal Toast, to His Majesty, The King.

(The toast to His Majesty the King was drunk with honours.)

THE PRESIDENT: The next toast on our list, gentlemen, will be changed from the "Army and Navy" to "The Fisheries," and in asking for this toast to "The Fisheries," we wish in an especial manner to honour our distinguished guest, the Honourable Minister of Naval Service, but whom we prefer to call "The Minister of Marine and Fisheries." (Applause.)

I would call upon Mr. J. A. Paulhus to propose the toast to "The Fisheries."

MR. PAULHUS: Mr. President, Mr. Minister, and Gentlemen: I appreciate the privilege of proposing the present toast before such a representative gathering. I take it to be the acknowledgment of my persistent endeavours to place the fish industry where it should be in our country—at the forefront.

I shall not dwell at any length on the merits or on the value of our fisheries, but I want to impress on every one of you that with all the knowledge we have on the matter, we are still far from conceiving the possibilities of development of this great national asset of ours.

To my mind the fish industry is worth infinitely more in economic values than any of our other resources, because the sources of supplies in this case are practically inexhaustible. It is not so in the country's other industries. It is not so with our mines, our forests, and even in our agriculture.

The capacity of these industries to produce are limited by nature, by the elements and by wear and tear, while with our fisheries it is the contrary—the more we ask of them the more they will yield, without the help of costly contrivances, technical engineering or depending upon rain, sun, or moisture, as is the case with farming. Then, how explain the apparent indifference of our population to take advantage of such a golden opportunity.

From all the experiences I have in the fish business and from connection with different Associations, I have learned that the most serious impediments to the development of our fisheries is due partly to ignorance and partly to prejudice. The success of our fisheries is based upon a demand for fish as an article of food, and until it is recognized that fish food is not only for use at certain periods of the year, on certain particular days of the week, and for certain purposes, but is a good, healthy food for regular and daily consumptoin, we cannot expect any rapid improvement. It must also be taught that Fish as a food is just as nutritious, just as palatable, and even more so than any other kind of food.

Perhaps it will be necessary to appeal to sentiment to enlist our people in the case of our Fisheries. At all events, a serious campaign of education should be resorted to, and in this connection I make a strong appeal to the Honorable Minister of the Naval Service from whom we have already received such a valuable support, both from himself and from his department, but as the cause merits more attention from the Government, we may knock at his door again, and I feel con- the Honorable Minister and from his Department, all fident that the Industry will continue to receive all the consideration, all the care, that it is deserving of.

I was speaking a few moments ago about appealing to the sentiment of the country. Gentlemen, only yesterday this City of Montreal contributed two million, five hundred thousand dollars towards the war as a proof of its patriotism, its loyalty, and its love for the free institutions of the British Empire. (Applause.)

This gift was for war, consequently for destruction. Might we not make an appeal to the country ourselves, not for destruction, but for conservation, for preservation, and to help our economic situation? And should not our patriotic demands receive the same answer from the country as the Empire has received from the City?

We don't want financial assistance, we simply want our people to get more interested in our fisheries, to eat more fish. We want them to eat fish every day. Fish as a food is economical. We all know that, due to the terrible conflict of European arms, the financial conditions of this country will be severely tested, and we do not know how long they will endure the strain. Suppose that by a patriotic endeavour we increase the production of our fisheries by twenty per cent, and keep it increasing yearly. That would mean twenty per cent and more, income. This would be sufficient to pay interest on the billion dollars that we are raising to pay the cost of the war, and even provide for a sinking fund to redeem the debt later.

HON. J. D. HAZEN, Minister of Marine and Fisheries, and Hon. Pres. C. F. A.

I think if this could be realized, it would be the very essence of patriotism.

Gentlemen, I invite you to fill up your glasses and drink heartily to the success and prosperity of our Fisheries, (applause.)

THE PRESIDENT: Gentlemen, we are singularly favoured in having as our guest to-night, the Minister of the Marine and Fisheries Department, or the Min-

GREAT BRITAIN, HOLLAND, DENMARK, NORWAY, SWEDEN, UNITED STATES AND EVEN GERMANY ARE AWAY HEAD OF CANADA IN DEVELOPING THEIR FISHERIES. HOW LONG ARE WE GOING TO BE TAIL-ENDERS? JOIN THE ASSOCIATION AND GET OUT OF THE RUT.

ister of Naval Service, who has been good enough to agree to answer to this toast of "The Fisheries."

To my mind, there are no others here who are as conversant as he with this important industry, and the Department over which he presides, and no one so competent as he to answer to this toast, and since we have drunk with royal honours the toast to "The Fisheries" we are going to have the toast responded to royally by the responsible Minister in charge of that Department.

I have but one request to make of the Honourable Minister, and although it may seem like taking an unfair advantage, I might remind him that last year, when the Association was formed and we had our inaugural meeting in Ottawa, we presumed to ask of him some assistance for our young Association to permit us to tide over the strenuous time of formation until we would be larger and stronger, and until we could be in a better position to withstand the demands made upon us.

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Now, we have proved, by the first year of our existence, the advantages and benefits of an Association of this kind, and I feel like again making the request, that he include in the estimates a sum to enable us to develop our work and to continue our policy of educating the public to the advantage of fish as regular food, and also the policy of educating the fishermen, to make the best of their opportunities, and produce, if possible, an article for which they will receive better prices.

Gentlemen, I have much pleasure in introducing to you the Honourable Mr. J. D. Hazen, Minister of the Naval Service (applause.)

HONOURABLE MR. J. D. HAZEN: Mr. President, and Gentlemen: Some years ago, when I was younger than I am now, we used to, every winter, engage in the popular game of curling, of which I was a devotee, and I remember when we had the "Beef and Greens" after the evening's play, and we were called upon to make a speech, we used to begin by saying, "Mr. Presis, Mr. Vice-Presis, and brother curlers, and so I want to begin this evening by saying, "Mr. President, Mr. Vice-President, and brother fishermen (applause.)

I must assure you, Mr. President, that it affords me a very great deal of pleasure to be able to accept the invitation of the Canadian Fisheries Association to be present here to-night on the occasion of the first annual banquet. I was present a year ago on the occasion of the birth of the Association, and at that time I took advantage of the occasion to say that I believed that the Canadian Fisheries Association, if properly directed and properly managed, would be a very great factor in developing one of the great natural resources of Canada, and prove to be the right arm of the officials of the Naval Service, who are so anxious to develop and conserve the fisheries' wealth of Canada.

That fishery wealth, of course, is very extensive. We have over five thousand miles of sea coast on the Atlantic, extending from the St. Croix River around New Brunswick and Nova Scotia, and up to the Gulf of St. Lawrence and to the Straits of Belle Isle.

We have over seven thousand five hundred miles of sea coast on the Pacific, without counting the indentations along the Pacific Coast. Every mile of that sea coast, both on the Atlantic and Pacific side is prolific with fishery wealth.

Our fishery wealth and our fishery industry has not developed as rapidly as we thought they should. Of course, our population has not been very large. In the present day in Canada we have a population of posibly less than eight million people, but if our fisheries would develop as they should, and if the population of Canada had been educated as to the importance and value of fish as a food, then our fisheries would have developed very much more rapidly, and to a much greater extent than they have. But, unfortunately, the population of Canada, especially in the Prairie Provinces, have not been alive to the importance and value of fish as a food to the extent that they should have been. But I am glad to say that with the policy of education, and the policy of demonstrating the value of fish as a food that has been pursued during the past few years, there is a very much greater interest in the fisheries of Canada being taken, and the people of our Western Provinces are beginning to realize now the importance and value of the fishing industry, and the result of this policy of education being carried on by those interested in Canadian fisheries, and the people beginning to realize the value of fish as a food—as, I say, the result will be very much to the advantage to those who go down to the seas in ships, making their livelihood in the great waters, and those who are engaged in the fishing industry in the wonderfully fertile waters of the Atlantic and Pacific coasts will be able to reap one of the greatest harvests in the way of food fish than it has ever yet been able to boast of (applause.)

We all know, we are engaged at the present time in the greatest war of all time. Everybody in Canada hopes that this great war will soon come to an end. Some are optimistic that it will close in a period of a few months; others expect that it will need a year, or perhaps two or three years before it comes to an end, but we all know that there is no evil out of which some good does not come, and one of the things that is coming out of this war is development of the Canadian fisheries and an increased business for those engaged in the fish industry in Canada.

Canadian Fish for Canadian Soldiers.

As a result of that—as an illustration—I might point out the fact that the Militia Department of Canada has made arrangements under which there will be shipped thousands of pounds of fish every week now from the port of St. John, and when the River St. Lawrence opens up after the winter season is over, from the port of Quebec. They are arranging for the shipment of thousands of pounds of fish that will go across the water for the purpose of feeding our troops in the field, and who are in the camps in England at the present time.

Is there a man sitting around this board to-night who is interested in the fishing industry—and you are all engaged in the Canadian Fishing Industry—is there a man here to-night who does not believe that if once our fish are introduced into the British Isles and into Europe, that it will not lead to a permanent industry because of the superiority of the fish taken at the present time from the Eastern and Western shores of Canada? (applause.)

Work of the Fisheries Department.

A year ago, when I had the opportunity of addressing you at the inaugural meeting in Ottawa, I discussed in a general way the question of Canadian fisheries. Now, I do not intend to do so again this evening, but I propose now to tell you of what has been done, during the past year especially, with what the Department of Marine and Fisheries is concerned, and what they have done in developing the interests which you have at heart.

Now, as the Speaker of the House of Commons does, when a speech comes down from the Senate, after it has been sent by His Excellency, the Governor General, when it reaches the House of Commons, for the purpose of securing greater accuracy, the Speaker obtains a copy of that speech, and to-night, in order that what I may say may be accurate, I have taken it upon myself to commit my remarks to writing, and you will pardon me if I read it, as I think it is desirable in dealing with a question of the importance of one of our great natural assets, that no word shall be spoken that cannot be verified and supported by the evidence in the case.

As, unfortunately, it is no easy task to afford the fisheries that require such, adequate protection, a great deal of the Department's work is essentially of what may be termed a "negative character,"—the "Thou shalt not" sort of work. While such service is of the utmost importance and demands close attention, and much time, the affirmative side—the doing of things to increase the knowledge of the fishermen in the life history of fish, to enable them to catch more fish, to prevent them losing valuable time, to encourage the better handling of fish, so that the fishermen will get more for their catches, and the causing of the public to get a better article of food, to provide better facilities and cheaper rates for the transportation of fish, to bring to the attention of the public the value, cheapness and general excellence of fish as food, and the keeping up of fish by artificial hatching, etc.,—is ever continuing to receive more and more of the Department's attention.

Fish Inspection Act.

I wish now to say just a word in reference to the Fish Inspection Act. The Fish Inspection Act, which was passed during a previous session of Parliament, came into operation on the 1st of May last. This Act provides for the inspection and branding of pickled fish. Its object is to bring into use strong, well-made barrels of a fixed standard size, to replace the shaky, leaky ones now in general use; to lift the standard of curing and grading fish, so that the cured article may secure the confidence of dealers and consumers in all available markets, and so command the highest prices—in short to bring our pickled fish industry to the standard of excellence and importance of that of Europe. These remarks apply most particularly to the herring fishery.

We have the fish in practically unlimited quantities on both our coasts, and of quality admittedly second to none. With proper appliances, we can catch them and pack them as cheaply as on the other side of the Ocean.

But, on account of the careless and inefficient way in which our fish are handled, particularly herring,

WE WANT TO MAKE CANADA'S FISHERIES THE GREATEST AND BEST ORGANIZED IN THE WORLD. JOIN THE CANADIAN FISHERIES ASSOCIATION AND ASSIST IN DOING SO.

and the cheap and leaky barrels in which they are usually marketed, they are rightly regarded with suspicion by the dealers and bring a low price. Consequently, instead of progressing, the industry has continued in a languishing condition.

From our geographical position, none should be able to compete with Canada in supplying the markets of this continent with pickled herring, but we have the anomalous condition of the United States markets, and to an important extent those of Canada, being supplied to a large degree from Europe.

Before the Act came into force, the General Inspector of Pickled Fish had visited practically all portions of the coast, and at meetings of the fishermen and others interested, he explained the requirements of the Act, and the conditions under which the brand of the Government would be placed upon the packages. Also, a staff of competent Inspectors had been appointed, who were required not only to do all necessary inspection, but to give any desired information with regard to packing the fish, etc.

Mr. S. Y. Wilson, Vice-President, C. F. A.

It was not considered feasible to make the Act compulsory. It was hoped that the guarantee of quality, which the brand would afford to buyers, would enable the producers of branded goods, to procure so much more remunerative prices than in their own interests the packers would, in the course of a few years, put up all their pickled fish for the brand.

While there was not such broadcast enthusiasm for the adoption of better methods amongst those who should be most interested, as was hoped for, because the fishermen, like the farmers, are very likely to get into a rut, and to say that what was good enough for their fathers, and good enough for their grandfathers, was good enough for them, still, a limited number of persons on different parts of the coast expressed their intention of packing some barrels for the brand. This they have done, and during the past season 58 barrels of herring, 110 barrels of mackerel, and 1,160 barrels of alewives, were submitted for inspection on the Atlantic Coast. Of these 43 barrels of herring, 10 barrels of mackerel, and 1,158 barrels of alewives were found to be in accordance with requirements, and were branded, (applause.)

While more extensive adoption of better methods was hoped for, it was not forgotten that last year was the initial season of the operation of the new Act, and hence comparatively few had prepared themselves with proper barrels to enable them to pack their fish for the brand.

While it was not anticipated that the effect of the Act and of the work done under it, would speedily revolutionize the existing undesirable conditions, with all its drawbacks, the war has brought about the opportunity of so doing, and those interested have not been slow in recognizing it and arranging to avail themselves of it.

Owing to the restrictions placed on fishing operations in Europe, and the number of fishing vessels that have been withdrawn for war purposes, the production of herring has fallen to a minimum, and there is little available for export. What the conditions there are will be appreciated from the following figures:

In the nine months ended September 30 last, the exports of herring from Great Britain were 705,368 cwt., as against 3,182,120 cwt. during the same period in 1914, and 4,452,567 cwt. during the same months of 1913.

The consequence is, the markets of this continent are practically bare and the prices good.

In these circumstances, a number of firms are arranging to go extensively into the pickled herring industry during the coming season, and to put up all their goods for the brand. It is understood that herring drifting in the open sea will also be conducted during the summer months.

The Department has had the General Inspector of Pickled Fish spend much time on the coast during the past fall going amongst those interested and giving them all the information and advice they required.

One of the gentlemen who spoke here to-night, spoke about the necessity of educating—or the necessity of education among the fishermen. As I said before, the fishermen are like the farmers in a great many ways, they have gotten into a rut, and have advanced the argument that what was good enough for their fathers and their grandfathers, was good enough for them.

As regards the farmers: They have been educated along agricultural lines, by means of farming institutions, and by literature given out amongst them, and by officials who have gone out amongst them, and got the farmers together and have talked to them, and explained the uses of the various methods of improvement in their work, and the result has been that a great many of the farmers are better off to-day than they would have been under the old manner of doing things. This method has accomplished great things, and we in the Department are trying to accomplish a similar result in a similar way, amongst the fishermen.

These Inspectors visited the fishermen and discussed with them the new methods to be adopted, and pointed out to them the great expansion that may come in the fishing business by the adoption of these new methods, and by putting up their fish in a condition that will attract the purchasers of the country, and to depart from the methods so long in vogue, which methods were those of their fathers and grandfathers, and which they find it so hard to depart from.

Experience makes it abundantly clear that the only way in which a large pickled herring industry can be successfully carried on there, is by the fishermen being fishermen only, and selling their catches as they take them ashore, to the packers.

This course, it is gratifying to know, is being now adopted.

With the exercise of energy, and proper care by the fishermen and packers, and efficient supervision of the industry, there is every reason to look forward with confidence to a tremendous growth in the business during the next few years.

It may be well to remark here that the progress that is made in bringing the standard of the pack up to that of the European product depends, in a large measure, on the wholesale dealers. If they will insist on buying nothing that has not at least been presented for inspection, the packers will not fail to do their part in putting up all their goods for the brand, and time will be short until all pickled fish will be put up in the most approved methods, and will be equal to those produced anywhere.

In the light of existing prospects there seems good reason to believe that the time is within measurable distance when our herring fishery will view that of the British Isles, which, in normal time, is worth between $20,000,000 and $30,000,000, annually, upwards of two-thirds of the value of all our Canadian fisheries at present. My opinion is to the effect that the herring industry in Scotland was developed and prompted by just such Legislation as it was my pleasure to put through here, and to place upon the Statute Books of Canada two years ago (applause.)

To bring this about, the present method of fishing, as well as of packing, must be largely revolutionized. The fishermen must not restrict their fishing to the time when the herring come right in to the coasts, but must follow them to the open sea, where once the schools are located, practically endless quantities of the best quality will be captured, as is done on the European side.

Herring Investigations.

I now come to the investigation of the experts, especially that of Dr. Hjort.

Realizing the importance of all possible knowledge of the natural history and movements of the herring being available, an arrangement was made early last year to have Dr. Hjort, the Director of Norwegian Fisheries, and one of the world's recognized experts on the herring, come to Canada and spend a full summer in investigations.

As a preliminary to his work, samples of herring properly put up for examination, were procured on the different parts of the coast, prior to his arrival, for his use and for his inspection.

His final report is now in preparation and is expected in a few months. His preliminary report has already been published and widely distributed. He has already found it to be a fact that there are different races of herring on our side of the Atlantic, as there are on the other. By a "Race" is meant a number of individuals living together under the same external conditions, together propagating their kind and standing, therefore, in more or less close relation to each other. There are those which spawn in the Spring and others which spawn in the Fall.

A sufficient number of copies of Dr. Hjort's final report will be printed for distribution, to enable one to be placed in the hands of each person who will make use of it, and the result will be—at least I hope it will be—that the fishermen on the Atlantic and Pacific Coasts will realize that in the future, in order to supply this continent with herring, the market for which is opened, and at most remunerative prices as a consequence of the conditions created by the war on the other side of the Atlantic, or they will realize that, in order to carry on that herring industry successfully, they cannot confine their industry to the herring that come to the coast at certain seasons of the year, but they will have to follow them to the open sea, as do the Norwegians.

From Dr. Hjort's report it will be shown that herring that come here are a very superior herring (applause.)

Bait Reports.

To prevent, as far as possible, loss of time to the fishermen in procuring supplies of bait, and thus save them expense and enable them to increase their production, the Department during the cod fishing season collected information at the different bait producing centres, as to the supplies of bait caught from day to day.

This information was sent each morning by telegram to the different important resorts of fishing vessels, and there posted up in cases made for the purpose, where it could be readily seen by all, and which arrangement, I believe, has been most advantageous and desirable.

During the past summer I took a trip to Anticosti, and I went, of course, into the Gaspe basin on the way, as I wanted to see at first hand the condition of the industry in the Gaspe region, and the Magdalen Islands, and also at Anticosti.

Quite a number of the fishermen came aboard the boat I was on, the "Lady Grey," for the purpose of discussing the fishing question with me, and I was very much gratified to learn that they had never experienced as good a catch of cod as during the past summer and autumn (applause.)

Gentlemen, speaking of the good that may come out of evil, I want to tell you these fishermen believe—and their theory may be good—and they are fishermen of experience of years—but their theory was that the reason that there were so many good codfish on the Gaspe coast was that the waters of the North Sea had been so disturbed by submarines and by the naval activities on the North Sea, that the codfish had been seeking a safer home for himself far from the disturbed waters of the North Sea, and had come to the more peaceful waters and shores of Quebec, where, under the British flag, liberty was sure to all persons and to all fish (laughter and applause.)

Transportation of Fish.

I would like to say a word now regarding the transportation facilities. Throughout the year, the Department had continued to pay one-third of the express charges on shipments in less than carload lots of fresh and mildly cured fish, from the seaboard ports to the interior markets. This course has been followed since 1908.

Major Hugh A. Green.

I am sorry to see that my esteemed friend, Mr. Vickers, is not here. I would like to ask him, if he were here tonight, why he has not reduced the express rates during the past year (applause). But, as he is not here that is hardly fair, although if he were, no doubt he would have a very plausible answer (laughter).

But, from time to time other facilities have been afforded, including a fast freight refrigerator car service from the Atlantic sea-board to Montreal, which this year was extended from one to three days per week.

Admittedly, the assistance which the Government has given the business in this connection has enabled it to become what it is to-day.

When eight or nine years ago the matter was first taken up, it was found possible to induce the express companies to reduce their rates or give better facilities. It was hoped, however, that when it was shown —which they were not then disposed to believe possible—that a large and ever increasing business would be done with reasonable rates and proper facilities available, they would lower their rates and afford such facilities in their own interests.

This, there seems little indication they will do. That is the reason why I hoped Mr. Vickers would be here this evening, and tell us why they do not do it.

With the assistance given by the Government, the business has rapidly developed from a comparatively insignificant trade to one of large proportions, and it continues to rapidly expand.

It is speedily reaching the volume when it can take care of itself.

Experience is showing that it is practical to handle it largely by fast freight in cold storage cars. Fast freight trains are now generally reliable in their movements, and fish shipped by them in cold storage cars reach their destination in as good condition as when shipped, which is not always the case with fish packed in ice and forwarded in ordinary express cars.

Moreover, the gross freight rates are only about one-third of the express charges so that it is in the interest of the general public that freight should be used to as large an extent as possible, as such will enable the fish to be sold to the consumer at lower prices.

While, therefore, the Government cannot be expected to much longer continue paying a portion of the transportation charges, I may say that the officials of the Fisheries Board recognize that the proportion that we are paying, should be reduced gradually until it reaches the vanishing point, and it is gratifying to know that the business can be handled in a way that will enable the fish to be sold to the consumer cheaper than in the past, even though the express rates are not made satisfactory, and in that we want the co-operation of your Society, Mr. President, and I know that we shall have it (applause and cries of "hear; hear.")

Advertising the Fisheries.

Now I wish to speak a moment about an entirely new departure in the Fisheries Industry of Canada, and that is in connection with the Toronto Exhibition.

The Department has also been doing its part to advertise the fisheries. For the third time it gave a Fisheries Exhibit at the Canadian National Exhibition at Toronto, and last year it was bigger and better than either of its predecessors (applause).

The thanks of the Department are due to the Maritime Fish Corporation, Limited, and to the F. T. James Company, for their co-operation in making this exhibit the splendid success it was (applause).

It was admittedly one of the leading features of the Fair, and as is well known the Toronto Exhibition is in every sense a National one, and is visited by people from all parts of the country. I had the pleasure of speaking there, and I was extremely proud to do so, as I felt that the officials of my Department had carried out the ideas in a way that left nothing to be desired, and they deserve every praise from the Fishery Department of Canada (applause).

The Fisheries Exhibit was again this year awarded a Gold Medal.

As it was felt that the educative effects of the exhibit would be clinched, if an opportunity were given to the visitors to taste the fish properly cooked, and to give the people of Ontario, and the Interior Provinces, and the people of the United States who crowd into that Exhibition every year, which is the greatest annual exhibition in the world, an opportunity to taste the Canadian fish cooked as they should be cooked, it would be a big step in the right direction.

And let me tell you right here that one of the greatest causes in the way of introducing fish into the markets of Ontario, and of the West, is the fact that the people do not know how to properly prepare them for the table.

Those of us who come from the Atlantic side of Canada know nothing more delicious than salt cod that has been properly cooked, but where is the house-keeper that knows how to cook it properly? Where is the house-keeper that knows any of the dozens of ways to properly cook a cod in a way that makes it palatable and one of the most excellent breakfast dishes in the world?

The Department last year arranged for the operation of a large first-class fisheries restaurant on the Grounds, where an excellent fish dinner could be procured for twenty-five cents. This restaurant was a splendid success, and I had the pleasure of sampling a dinner there myself, and you can go to the Ritz Carlton or the Chateau Laurier and you could not get as good a meal for a dollar and a half as you could get for twenty-five cents at the Fisheries restuarant at the Toronto Exhibition (applause).

During the term of the Exhibition, over twenty-five thousand meals were served in it, and on one occasion the Exhibition Association entertained about two hundred and fifty members of the Press Association to dinner at the restaurant. For the first time, last year, there was a "Fisheries Day" at the Exhibition. The first Friday was so set apart, and was advertised as "Fisheries Day" in all the literature of the Association.

I believe that the twenty-five thousand people who had the privilege and the opportunity of getting fish dinners at that restaurant, fish that was properly cooked, went away advocates of the Canadian fish for their own tables, and the result will be that from the twenty-five thousand dinners served at the Exhibition, over twenty-five million fish dinners will be served in the Province of Ontario and the West, during the coming year (applause).

As I say, for the first time there was a "Fisheries Day" at the Exhibition. In Nineteen hundred and Fourteen, when I was at the Exhibition, they had arranged for an "Agricultural Day", a "Live Stock Day," and I said to my good friend Joseph Oliver, "Why don't you have a "Fisheries Day" at the Toronto Exhibition? The Fisheries are one of the greatest natural industries of this country. You want to develop it. This Toronto Exhibition has more than a Dominion representation; it is an international exhibition, and you can do much to develop the fisheries—the Canadian fisheries, and to assist in providing the people of Ontario by inducing them to taste the Canadian fish that are properly cooked.

"You remember that it was the great scientist, Louis Agassiz who said that 'Fish was a food that produced brains'', and you should do all you can to help the development of the Canadian fisheries."

The result was that the "Fisheries Day" was installed last year, in accordance with the fitness of things, on a Friday, and steps have been taken to make the "Fisheries Day" a feature of the fair in the future.

The Department, I may say, has taken up the question of educating the house-keeper as to the better methods regarding the cooking of the fish. The Department has had printed two hundred and fifty thousand copies of the booklet "Fish and How to Cook Them," nearly all of which have been distributed. This booklet has been received with much favor by the public.

You will hardly believe me, when I tell you that the demand for this booklet at the Department has been so great that the first edition of two hundred and fifty thousand copies has been practically used up, and further editions will have to be printed, and we have obtained a great number of requests to have this book printed in the French language for the people who speak that language, so we have had calls from both the nationalities, and a call for editions in both French and English from people who are interested in this publication, and it is the intention of the Department to issue further editions, possibly bringing the matter up to-day, as I understand that Mr. Desbarats and Mr. Found have been experimenting in this connection in the past for new receipts and further editions will have to be published in the near future.

Fish Breeding.

What has contributed more than anything else to increasing the Canadian fisheries have been our fish-breeding establishments. Fish-breeding, the effectiveness of which is now so well established as to require no argument, is carried out on a very large scale and ever increasing scale, by the Department.

As a result of such operation, the productivity of the Great Lakes and the other commercial inland waters, is kept up, and even increased in different important instances, notably Lake Ontario, Lake Erie and Lake Winnipeg. The salmon fisheries of the Atlantic Coast are better than they were years ago, and by common consent of the canners on the Pacific Coast, the hatcheries are playing an important part in keeping up the supplies of salmon resorting to the rivers of British Columbia, which some years ago had almost been depleted of their fish, but the fish to-day are coming back in ever increasing numbers in consequence of the work done by our Fish-breeding establishments.

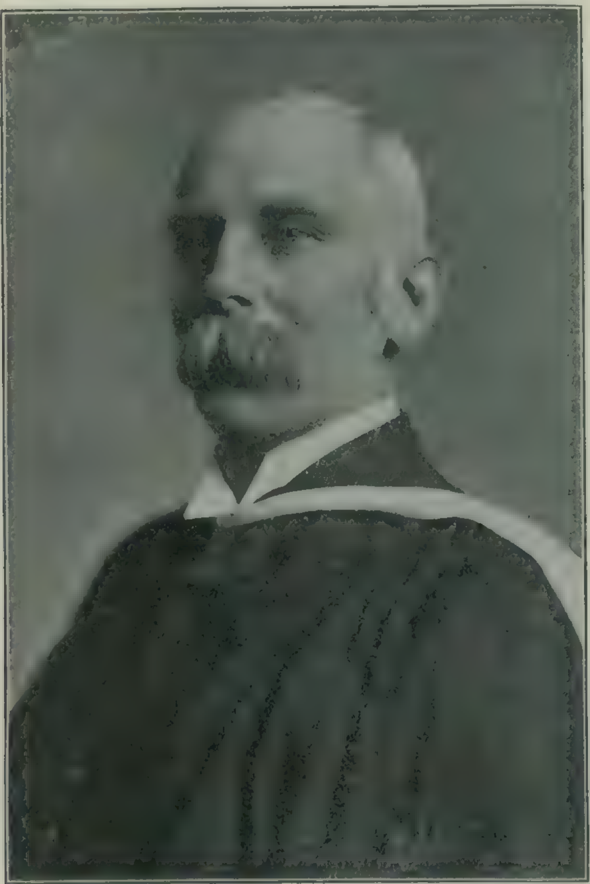
The Department has now over sixty hatcheries in operation, to my personal knowledge.

In concluding this paper I wish to speak for a moment on the question of our biological investigations. The Biological Board has been engaged during the past year in investigations which will be found to be of much value.

ONE DOLLAR A YEAR IS THE FISHERMEN'S MEMBERSHIP FEE FOR THE CANADIAN FISHERIES ASSOCIATION. THERE IS AN APPLICATION FORM AT THE FRONT OF THIS MAGAZINE. FILL IT OUT AND SEND IT IN.

For some time we were not sure of the effect on these hatcheries, in some respects, as we also felt doubtful about the salmon hatcheries, which had been established longer, but we put qualified men—trained men—in these hatcheries, and the results showed that the hatcheries were increasing rapidly and were doing very well. With these men, trained in hatchery work, placed in the different hatcheries, the results were apparent to everybody interested in this industry.

The Biological Board, of which Doctor Prince, one of the most distinguished biologists not only on this continent, but in the world, is a member, is composed of scientists—scientific men from the different Canadian Universities. A few years ago we found that their work was somewhat circumscribed by Departmental regulations. This was having a bad effect on the work of the Board, and I took immediate steps to remedy that condition and to give them a free hand (applause), and they have that free hand to-day, and during the past year at the different Biological stations, including that of St. Andrews, in New Brunswick, they have been engaged in the work of investigation which will be found to be of very much value (applause).



Dr. E. E. Prince, Commissioner of Fisheries.

It has been said on several occasions that the work of the Biological Board is too academic; that it is too academic to deal with practical questions, but I had some experience in the practical results from the speciment of finnan-haddie, which I had the pleasure of tasting, and which was sent over from the Board at St. Andrews.

A VOICE: You will have to beat that.

HON. MR. HAZEN: I think, my friend, I can almost beat that to-night, because it has been shown to me that the Biological Board has a practical side, when they requested me to indulge in a "Finnan-Haddie Cocktail" (laughter and applause). I do not think that the Board can be considered as purely academic when they can deal with a question that contributes so much to the pleasure of the practical side of life, as the question that Mr. Brittain called to my attention this evening (laughter and applause).

Lobster Hatcheries

Now, just a word about the lobster hatcheries: A good deal of money has been spent upon the lobster hatcheries, and great many lobsters hatched out, and yet there is a feeling of doubt on the part of the scientific men of the Department with regard to the results of what they are doing, in their methods of getting them in the water and of giving the best results, and whether it would not be better to rear them to an older stage before putting them into the water.

All questions being considered, however, I feel sure that the doubts of the Biological Board are not of much importance, and that the difficulties have been overcome, because there are more salmon on the Atlantic coast to-day than twenty years ago; more whitefish in the Lakes; more salmon trout in the Lakes; more pickerel in the Lakes, and more fish of other kinds in the different waters as result of the hatcheries, and I feel sure that the experiments of the Biological Board which they are carrying on, with regard to the lobster hatcheries will have much better results in the future.

In the hope of finding some better means of dealing with the hatching and rearing of lobsters than those at present known, the Board continued such investigations last year, and will prosecute them further during the coming season.

The life history of different of our important food fishes was studied by competent scientists, as well as diseases which sometimes affect fish. The reports on these matters are now being printed for distribution.

And we may say here that we had a very extraordinary state of affairs this year on the Gulf where we found a fish disease, the nature of which is being studied by scientific men. I would ask the men who are sitting around this Board to-night who are interested in the fisheries, and whose interest is of a practical kind, to study carefully the reports of the Biological Board, because I believe it is by an interchange of views between scientific and practical men that the very best results can be accomplished.

I spoke a few moments ago in regard to our fish hatcheries and the result that has attended them. I want to give you a few figures of comparison showing our collections of eggs this year and previous years. In British Columbia, where the only fisheries developed so far are the salmon and the halibut, where the waters are simply teeming with fish.

You all know the conditions of the Fraser, and how the year Nineteen hundred and thirteen was the year of the "Big Catch"; how every four years is a year of what is called the "Big Catch", and how in the last Big Catch, from the mouth of the river to New Westminster, there were from two thousand five hundred to three thousand people driving for salmon, with their nets crossed, and re-crossed and re-crossed, until you wondered how a salmon ever got up the river and reached the spawning ground. But they managed to get up there some way, as is evidenced by the catch made in later years.

Of course, there are closed seasons, I think from six o'clock on Friday night until six o'clock on Sunday night, or something like that, but what breaks our hearts is when we go down from the mouth of the Fraser River, down on the American side of the line and see the catches or the devices that are used to catch or endeavour to catch these fish.

Fisheries Boundary Dispute With United States.

You can hear from Doctor Prince how we entered into a treaty with the best of good faith with the Government of the United States, in order to have regulations formed for the protection of the fish in the waters contiguous to the International Boundary Line on the Pacific, the Atlantic, the River St. Lawrence and the Great Lakes; how a commission was appointed for the purpose of forming the regulations; how the treaty, solemnly entered into, provided that when these regulations were formed by these commissioners, our own Parliament and the Congress of the United States would pass legislation for the purpose of making these regulations effective; how the Dominion of Canada appointed Doctor Prince to represent it, and the United States appointed Professor Jordan, a well-known biologist and scientist.

These gentlemen met, discussed the whole question, formulated these regulations, and when they were formulated, without a moment's hesitation, the Parliament of Canada passed the legislation to make these regulations effective. The United States dilly-dallied about it. The President of the United States — President Taft — sent a message to Congress urging them to pass the necessary legislation, but unfortunately the President of the United States has no authority to enforce legislation.

The matter was left to a Committee in the Senate, I think it was, Delegates came in from Washington Territory, and from Michigan, saying that if these regulations came into force it would have a prejudicial effect upon the waters of Washington Territory and in Michigan, and while the Canadian Parliament did not allow the question to arise as to the prejudicial effect upon the Great Lakes, Passamaquoddy Bay or the Bay of Fundy, the United States Government allowed the matter to drag on for two or three years until the Canadian Government, in order to maintain its self-respect, had to give notice to the United States that they would have to allow the conditions to resume their former standing.

I think it was most unfortunate that the United States did not keep faith in that treaty. If President Taft had had his way it would have been done, and President Wilson would have done it, as he assured me in a talk I had with him in Washington, but the matter has been dragging along, and along and along, the interest of the individual fisherman being considered by the Committee of the Foreign Relations of the United States, until Canada could do nothing else than to resume its former conditions in order to maintain its self respect.

Fish Hatcheries.

But, I was going to say, speaking of the Pacific salmon fisheries, that we collected, in 1915, 120,957,070 ova, an increase of 42,122,445 over the eggs that we collected in 1914, and we are not only collecting these eggs and preserving these fisheries for our own people, but unfortunately, for the people of the United States with these fearful machines and traps scattered along the coast from the Boundary line south, to catch so many of the salmon trying to make their way up the Fraser River, for the purpose of reproducing their species. There is a falling off in other areas, but an increase of over 50,000,000 in the Fraser River Watershed.

In the Inland Provinces — and that is largely in the Province of Ontario, we collected 95,665,170 more whitefish eggs than in 1914. We have collected 147,258,800 moreh herring eggs than in 1914, and collected 19,570,500 more salmon trout eggs than in 1914.

This is also a record collection. It is over 95,500,000 greater than that of 1914, and the 1914 collection was 196,000,000, greater than that of 1913.

No serious effort was made previous to last year to collect herring eggs. The work was successful, resulting in a collection of over 147,000 eggs.

A record was also made in the collection of salmon trout eggs, which was 19,500,000 greater than that of 1914.

In the Atlantic Provinces there was a falling off in the collection of both Atlantic salmon and speckled trout eggs. The Department was unable to procure the usual number of parent fish taken by the fishermen during the early run, although all that were suitable were accepted. There never has been any difficulty in making up any shortage at other ponds in the Miramichi. This season, the Miramichi fish were diseased. They came in from the sea diseased, and that is a question that our scientists have to treat. A large number had to be rejected and a much heavier loss than usual took place in the pond, thus preventing the shortage at other places being made up here. The speckled trout collection, in the Atlantic Provinces, was also slightly smaller, but arrangements have been made for the purchase of 1,000,000 such eggs and the distribution should be greater than that of 1915, by about 500,000.

As regards to Lobsters: A record, I may say, was also established in the distribution of lobster fry in 1914, by over 190,500,000.

The total distribution was 904,600,000.

Along the Northumberland — that portion of Prince Edward Island, and New Brunswick along the Northumberland, more lobsters were caught and larger lobsters were caught than for many years previously, and this leads some of our experts to think that these results are the better methods adopted in the lobster hatcheries, and which results are now being felt.

Shad Hatchery.

Now, we have had a fishery that you don't know much about, and those are the Shad. The shad is a most delicious fish. For instance, in certain seasons of the year, planked shad is considered one of the greatest of delicacies. Coming up the Bay of Fundy and the River St. John, and they have been growing less

EVERY FISH MAN AND FISHERMAN IN CANADA SHOULD TAKE AN INTEREST IN THE DEVELOPMENT OF CANADA'S FISHERIES. JOIN THE CANADIAN FISHERIES ASSOCIATION AND HELP THE GOOD WORK ALONG.

during the last four years, but a year ago after a consultation with Dr. Prince and Mr. Found, we established a shad hatchery on the River St. John.

Now the shad is a most delicate fish. You cannot take it as you can a salmon, which is a most hardy fish, and pen him up in a pond. As a result of the hatchery, we have found, in order to deal properly with the shad, that you have to have a sort of a peripetetic hatchery, which is one placed on scows, and these scows are taken close up to the spawning beds, and the shad taken from the waters and placed in these scows and then towed to the permanent hatchery. It is necessary to run these scows up the River St. John, and the Kennebecassis and Mattawumkeag to the shad spawning beds, strip the beds of the spawn, in order to get the best results.

We started this work four years ago. We were not sure of results; we could not tell at once, but last year the shad fisheries on the coast of Charlotte and the Bay of Fundy was the best they have had for a period of 20 years (applause), and I know in my own constituency, a man with whom I was talking, said that along the coast of Charlotte the extra shad hatcheries catch last year was a great advantage over the previous years and was due practically entirely to the artificial hatcheries.

Mr. W. A. Found, Superintendent of Fisheries.

Gentlemen, I have trespassed almost too long upon your time, but I have felt that the matters of which I spoke were matters of common interest to many of you here to-night.

A VOICE: No. no. Go on.

HON. Mr. HAZEN: — but I was trying to point out to you the practical work that the Department of Fisheries is trying to do at the present time.

Close Seasons.

One of the greatest difficulties we are met with is this: We have closed seasons and open seasons. We have open seasons of a certain length of time during which fishermen can catch the fish — during which the fish can be caught — lobsters, smelt, and other fish.

These open and closed seasons are fixed by regulations and not by Statute. The result is that the Minister of Marine and Fisheries — now, for the time being, the Minister of Naval Service, has practically the power to get counsel, and the counsel will act upon matters of this sort, to extend the seasons. Yet, for three years I have had my back to the wall, and refused to extend a single season for the catch of salmon, lobsters and any other fishes.

I have stated to Parliament that I thought it might be better if these seasons were regulated by Statutes and not by Regulations, so that neither the Minister nor the Governor-in-Council would have the power to extend them. But there do come times when it is perhaps desirable to extend these seasons.

I may tell you the state of affairs that exists at the present time in the Maritime Provinces. I have made investigations among the smelt fishing industry, and have been told by gentlemen engaged in that industry that as a consequence of the very open season we have had, and so little cold weather, that practically, up to the present time, there has not been a smelt caught in the Restigouche and Miramichi rivers.

In a good season, the whole river is covered with little shacks — little board houses, with stoves in them and a bed, and from these shacks the fishermen cut holes in the ice, and drop cotton nets with a stick at each corner, but according to the formation of the ice this year I am told there has not been a single smelt caught upon the Restigouche and Miramichi rivers, and the industry upon which so many men depend for their livlihood has absolutely fallen down.

The season closes on the 15th of February and they are now asking, if the cold weather sets in (of course if the weather does not get colder, they should not need it), but if the cold weather sets in, they are asking for an extension of the season for 10 days from the 15th of February to the 25th.

The circumstances are very unusual and I would like very much to extend the season, but, as I have said before, I have had my back to the wall for some time, and have never yet extended a single fishing season.

It may be, however, that the conditions will change and they will be able to catch a large catch of smelt.

Pelagic Sealing.

We have during the year gone into a question of very great importance to the Pacific coast, and that is the question of Pelagic sealing, and the damages which they claim arises out of the treaty of 1911, under which 15 out of every 100 seals caught by the Government of the United States; 15 out of every 100 seals caught by the Government of Japan, and 10 out of every 100 seals caught by the Government of Russia, come to Canada in lieu of Canada giving up the policy of Pelagic sealing.

This matter was submitted to Judge Audette of the Exchequer Court, and between fifteen hundred and 1600 claims were filed, aggregating $9,000,000.

Judge Audette has investigated, at the cost of much labor to himself, every one of the claims, and in a report which I received a few days ago, he has recommended the payment of about $61,000 out of the total of $9,200,000 claimed. So, that that question will pass out of the range of practical politics now.

I need only express the hope that the Canadian Fisheries Association, at its meeting to-day, has entered upon what will prove to be a long and useful career, and I think you can do a great deal, not only towards advancing the interest of the fishing trade in Canada; not only to advance the interest of the country, and I believe that great progress has been made to make this Association a permanent institution, and I feel sure that it will prove also to be of great benefit to the Department of Marine and Fisheries, and of the Naval Service, a Department which you will permit me to say, owes what success it may have had, not to any effort of mine, but to the assistance I have received from the permanent officials of the Department, who are gentlemen I have found in every case anxious to advance the common interests, and possessing a knowledge of fishery matters, that has been most indispensible to me during the time that I have presided over the Department.

I sincerely trust and hope during the many years to come this Association may continue, not only, as I said, to be of assistance to the fishery trade of Canada, but I believe is on the eve of the greatest advancement in its history, and also of very great advantage to the Department of Marine and Fisheries, as well, (prolonged applause.)

THE PRESIDENT: Gentlemen: We have all listened with great interest and very much profit to the very able address delivered by the Honourable the Minister of the Naval Service, and I wish to thank him on your behalf, not only for coming here, but also for giving to us in such detail such an admirable expose of the activities of his Department, and their relation to the industry as a whole.

It is also pleasing for me, as representing the Association, to assure the Minister that the words uttered by him on behalf of the permanent staff of his Department, are truly borne out by our experience with these gentlemen. The staff of the Department of Naval Service has been of very great benefit to our Association, and in keeping with the promise made by the Honourable Minister at our inaugural dinner in Ottawa last February, that we should have the advantage of their co-operation and their services. As I say, these services have been to us of great benefit, and have helped us in many ways. We feel that in the present Minister of Naval Service our Association, and the fish industry in general, has a very sincere and staunch friend. I say this without hesitation, gentlemen, because the Honourable Mr. Hazen, at any time that we have had occasion to call on him, has shown great interest in our Association, and by the interest he has taken in our work, he has given us heart and helped us to feel that with his active, and I might say hearty, co-operation, it has been possible for the officials of your Association to delve in and make greater efforts in the work, because they felt that with the Minister and the experts and officials of his Department to assist us, it was of the greatest benefit in developing our work, which is largely along educational lines.

I wish to repeat, on behalf of the members of our Association, Mr. Minister, our gratitude and our sincere thanks to you for coming here this evening, and for delivering the able and admirable address you have given us in connection with the actual workings of your Department.

With reference to the fish hatcheries, there is no question but they have been of immense benefit to the fish industry. The establishment of these hatcheries, providing, as they do, for the continuation of the species, which without their assistance, as has been proven by our experience, many species of our fish would be by this time extinct, and I refer especially to the lake fish. The continuation of the hatcheries work, which I feel sure will be carried on in the future as in the past, assures to us in Canada an unlimited supply of fish for the future.

I will now come to the next toast of the evening, which we have superseded by the Fisheries, because, I will be frank with you, I was afraid if we brought in the toast of the Army and Navy before the Fisheries, the Honourable Minister who represents the Department of Naval Service, might have been called upon to answer both, for the Fisheries and for the Army and Navy.

HON. MR. HAZEN: Oh, no. One was quite sufficient, and I am a peaceful man.

BY THE PRESIDENT: I would ask Mr. Wilson, our First Vice-President, to propose the toast of the Army and Navy.

MR. WILSON: You will allow me, Mr. President, before attempting any word of speech, to apologize, as I am not a speaker, and especially as I have to follow the eloquent Minister, and you will admit I am therefore at a great disadvantage.

Before proceeding with the toast I am asked to propose, I would like to add to what the President has already said as to the thanks that are due from this Association to the Honourable Minister for the very elaborate and instructive speech he made here to-night on the fishery question. There are quite a number of things the Minister dealt with, but I would like, for my part, to have had him go into some greater particulars, but, as the Minister stated, it was almost impossible at a banquet of this kind, to take all such matters up in detail. Of course we naturally feel in any particular part of the Dominion in which we are individually interested, the fish of that particular part of the Dominion are by far the most important. The people on the Atlantic sea-board think, of course, the fisheries of the Atlantic sea-board are the important fisheries, and on the Pacific shore the same thing. And as the fisheries on the Pacific sea-board are all the more recent, naturally they are taken the most notice of at the present time. However, we are a little staid and a little more severe in our way of doing things on the Atlantic and are satisfied to let the Pacific fisheries go ahead, and we will beat them out when we get this Scotch herring fishery going.

I am digressing from the toast which I rose to propose, which is one of very solemn intent, perhaps, at this particular time, and is not one of mere sentiment. Perhaps some may think there is a good deal of difference between a Fisheries Association and the Army and Navy, but the Army and Navy is not divorced to any great extent from the fisheries of the British Empire. Taking, perhaps, a broader view than a Canadian view at the present time, the fishermen of the British Isles are practically absorbed into the naval service, to a man, as far as those that are afloat are concerned, and also in the Army. The people who are connected with the fisheries, that is those who handled the fisheries on the land, have gone into the Army service, and this fact has made the great opportunity for the Canadian fisheries to-day, and to these men who have gone into the Army and Navy we owe them a debt of gratitude not only for the fact that they did join the Army and the Navy, the fighting forces of the Empire, but this has made the opportunity to develop the Canadian fisheries, perhaps not to the same extent as their services to the Empire, but nevertheless it has created our golden opportunity, which is placed before the people who are conducting the fisheries of Canada to-day.

Having served some 25 or 26 years in the Canadian Militia, I feel I am a little bit of a soldier myself, or at least I thought I was before I got out of the service, but I really feel that we never realized the great obligation that we, as civilians, are under to both the Canadian Navy and the Canadian Army as it is composed to-day. I am happy to say that while I am not in the Canadian Militia to-day, I have two members of the family trying to do their little bit. The day before I left I got a letter from my second son, now in the trenches in France, and he has been there since last September. My older boy has made some endeavour to get to the trenches, but has not succeeded so far. He has done home duty since the 4th of August, 1914, and perhaps were it not for the fact I would have been left alone I would have been doing some of it myself.

Now I will bring my remarks to a close, and will ask you to join with me in the heartiest way in drinking to "The Health of the Army and Navy."

Mr. Earl sang "The British Navy."

THE PRESIDENT: I would now like to call on Mr. Desbarats, the Deputy Minister of the Naval Service, to answer the toast of The Army and Navy. We have no members here present who are actively connected with the Army or Navy, but Mr. Desbarats, representing in a special manner the Naval Service Department of Canada, is fittingly qualified to answer this toast, and I have therefore much pleasure in calling upon Mr. Desbarats to answer the toast of "The Army and Navy."

MR. DESBARATS: Mr. President and Gentlemen: I feel it rather difficult as a civilian, to be called upon to answer a toast of this kind, but at the present time no words are needed from anyone to put before any of the citizens of the British Empire the deeds which are being accomplished either by the Navy or by the Army.

I am, perhaps, from the work in which I am engaged, more fitted to speak more particularly on the work on the Navy, which is possibly not so spectacular as that which is being accomplished by our noble men who are at the front, but the work of the Navy certainly speaks for itself. At the present day the shores of Canada, which are bathed by the Atlantic Ocean and the Pacific Ocean, are entirely free, not only from any foreign attack, but from any menace of foreign aggression. The fleets of the enemy which at the beginning of the war were spread over the oceans of the world, have absolutely disappeared, and not only have their war vessels been beaten off the ocean, but their merchant ships, their carriers, have disappeared and have had to give up their accustomed routes, and their commercial fleets have been bottled up either in neutral ports, or captured in the Allied waters, or obliged to stay within their own harbours, and the fleets of the Empire are enabled to sail from shore to shore without let or hindrance. One of the immediate advantages which we Canadians enjoy as a result of this work is, that our produce, the produce of our farms, and fields, and fisheries, are enabled to cross the oceans to re-victual our armies at the front, and to feed the population of the British Isles, and all our friends, without any let or hindrance on the ocean. The British Navy has absolutely bottled up the German warships in their ports so that they are unable to affect our commerce in any way.

Gentlemen, as Deputy Minister of the Naval Service I also have the advantage of being the Deputy Head of the Fisheries Department of Canada, and as such, I have much pleasure in meeting the members of your Association. I have to thank your President and the members of your Committee for the very kind invitation which they extended to me to attend this dinner this evening, and I have to assure you of the very great pleasure which I have in meeting you on this occasion, as indeed myself and the officers of the Department have in meeting the members of your Association in our business relations at various times. It is always a pleasure and advantage to the officers of the Department to meet all members of the Canadian Fisheries Association to hear from their views, on the fishing industry of the country, to receive from them advice as to the measures to be adopted to extend that industry and to receive information by my leading officers to assist in framing the regulations which will tend to the advancement and development of the industry.

Mr. Hazen has explained in very fitting terms the active work, the constructive work, of the Department. But the Department is also very largely a conservation agency. The Fisheries of the Dominion, while vast, would very soon be exhausted if they were not developed in a proper manner, and if measures were not taken to conserve them, and one of the large activities of the Department is by prompt measures which will prevent the exhaustion of the various fisheries. As Mr. Hazen has said, these measures are not always popular, but it is extremely difficult to enforce such measures as close seasons, and restrictions in the size of mesh, or other similar measures, unless the fishermen, and the men engaged in the fishing industry, are persuaded of the necessity of these measures. For this, it is necessary that the regulations should be enacted in a reasonable manner, in a manner which will appeal to all the men engaged in the industry, and the officers of the Department look to the members of this Association for advice on this subject, and also for help, and in educating the sentiment of the fishermen and the fishing population generally, as to the necessity of these measures. By these means only can these regulations be enforced, and by these means only can the fishery industry of Canada expect to live forever, and increase as time goes by.

Mr. Hazen, in his remarks, said that as the head of the Department he wished to give the credit of the work which had been done by the Department during the last few years to the officers. These remarks were undoubtedly due to Mr. Hazen's kind heart, and to his great generosity. I do not think, gentlemen, you really believe them, because you know that the measures carried out by the Department were very frequently initiated by Mr. Hazen himself, and that when they were not actually initiated by him, the measures brought before him by his officers were realized owing to the great interest which he took in the fisheries, and to the ability with which he administers the Department, and the zeal with which he urges upon his officers the interests of the trade.

Mr. Chairman, I wish to thank you again for the occasion of meeting the members of your Association this evening.

THE PRESIDENT: I have much pleasure in calling upon Major Green for a song.

MAJOR GREEN sang.

THE PRESIDENT: The next toast on our list is one which it is always a pleasure to drink, because we have always been favoured by having guests whom we are delighted to honour, and I will now ask Mr. A. H. Brittain, a Director, and Chairman of our Transportation Committee, to propose the toast of Our Guests.

MR. BRITTAIN: Mr. President and Gentlemen: I regret very much that I have very little to say at this late (or rather early) hour. I see we have amongst our distinguished guests here to-night, besides our Honorary President, Mr. Hazen, such men as Dr. Prince, Mr. E. D. T. Chambers, representing the Minister of Colonization, Mines and Fisheries for the Province of Quebec, and Mr. W. A. Found, the Superintendent of Fisheries, of Ottawa, and Mr. J. J. Cowie, also representing the Fisheries Department of Ottawa.

I regret, Mr. Chairman, that time will not permit me to eulogise on what these gentlemen have put before us to-night, but I can assure you that Dr. Prince is the man who can enlighten us all in regard to a lot of details as to whether salmon will leap eight feet or ten feet. I know he can tell us that, because he has proven it to me.

In so far as Mr. Chambers is concerned, I know we are all interested, because Mr. Chambers represents the fisheries from the Province of Quebec, something which we are all interested to hear about, and I am sure you will all be delighted to hear from Mr. Chambers.

In so far as my knowledge is concerned, and it is very limited as far as regards the technicalities of the various fishery matters, but I have a practical knowledge of the questions relating to transportation. However, I know that with regard to the Canadian fisheries, the laws are made by the Federal Department, and that the carrying out of these laws is vested in the Provinces.

As to Mr. Found, whilst the Minister, in his remarks about the members of his Department, did not mention any names. I know that Mr. Found is responsible for a whole lot of the good detail work done by the Department. I know that he is responsible for a lot of good with regard to the transportation matters, and he is also responsible for a lot of the good which has happened to the fish business. Every one in the fish business, no matter whether he has a vested interest of $500,000 or $50,000, knows that Mr. Found is responsible for the development of the transportation end of this business here.

As far as Mr. Cowie is concerned, I do not think I can say any more than what has been said. The herring industry has answered the question. He has already delivered the goods. He has already shown us from an individual standpoint, that there is more money in the herring, and he is going to show us from a practical standpoint, and in the blue books as well, that there is more money in the herring, and that is what counts.

I have very great pleasure in proposing the toast of Our Guests, coupled with the names of Dr. Prince, Mr. E. D. T. Chambers, and Mr. W. A. Found, and I must not forget Mr. J. J. Cowie, and I would ask you to fill your glasses and drink a hearty toast to the guests of the evening.

Before sitting down let me say this, that a business man is not supposed to be able to make a speech, and I never do make one.

THE PRESIDENT: I have much pleasure in asking Dr. Prince to respond to this toast, which has been so ably proposed by our friend, Mr. Brittain, and which I am sure, will be as ably responded to by our guests this evening.

I have much pleasure in calling upon Dr. Prince to respond first to this toast of "Our Guests." (Applause.)

DR. PRINCE: Mr. President, Honourable Mr. Hazen and Gentlemen: This occasion is one that is looked upon as a very important occasion. And so it is. There are officials here to-night, who have looked forward to this first annual meeting with a great deal of interest and a great deal of pleasure. This is one of the red-letter events of this, the first annual meeting and banquet of the Canadian Fisheries Association, and I am satisfied that the Honourable Mr. Hazen, himself, would not have torn himself away from his duties of Parliament, and from the very, very heavy tasks which await him at Ottawa, had he not realized that this gathering of the representatives of the Fisheries of the country, was one of the most important gatherings—perhaps not so great as some in numbers—but one of the most important and influential to be held during the year in the Dominion of Canada (applause.)

At this stage, and knowing that I will be followed by three or four speakers, I propose to limit my remarks, and to be very brief.

If I would have to select a text at all for the few words I have to say, it would be this, from the front cover—the splendid words which appear on the menu card to-night, and that is, "In all the World no Fisheries Like Ours," (applause.) That, gentlemen, expresses a sentiment from which I think no Canadian can shrink, and to which he will respond with his whole heart and soul, and it may rather interest you gentlemen to know that on many occasions I have given utterance to this text, and have said that there were no fisheries in the world like the fisheries of Canada (applause), and I have been taken to task many times for uttering that sentiment.

I remember in the United States, on one occasion, that a very important official there stood up and challenged my claim, but I am sure that those present here this evening, will not challenge my claim that the fisheries of Canada have no peer in the world.

But these things arise from misunderstandings, from those who misunderstand the fishery conditions of this and other countries. I did not claim that the fisheries of Canada had a greater yield in money than any other fisheries in the world, but I did, and I do claim, that we have the best fisheries, in quality of fish handled, the most fertile fisheries, and we obtain the best results from these fisheries, better results, than any other, and results which have no parallel in any other country in the world, (cries of hear, hear.) This claim, I think, can be fully maintained.

I think if I were to attempt to act to-night upon the remarks made by Mr. Brittain, I would be inclined to do as the colored man did. I think I might find myself in the position of the medical man who offered advice to the negro, and after he had given the advice, Sambo retired without paying the doctor his fee.

"Here, Sambo, you have forgotten to pay my fee," said the doctor. "Pay you what for, sir?" said Sambo. "Pay me for my advice," said the doctor. "No, sir, no, sir," said Sambo. "I will not pay you for your advice, because I am not going to take it," (laughter.)

Well, gentlemen, I do not propose to offer any advice, either, but I would like to say one or two words in regard to some remarks that have fallen from the lips of the Minister of Marine and Fisheries, and emphasize them and impress them by a few further words, upon your attention to-night.

Regarding the work of Doctor Hjort, the Norwegian scientist. You gentlemen will undoubtedly realize the importance of the work that was necessarily being done, and the importance of the work that was, of necessity, to be done. There was no authority greater than Dr. Hjort to undertake it, and the Biological Board, knowing Doctor Hjort's ability and work he had done, and backed up by the Honourable Mr. Hazen's support, were able to engage that eminent expert to make known to us something about the resources of the herring fisheries of our Atlantic shores, and this preliminary report, of which the Honourable Minister spoke, is only a preface to the work which he has really accomplished, and the report upon which he is now at work in Bergen, in Norway, will be full of value and interest to us all.

I should like also to refer to some other remarks which the Honourable Mr. Hazen made, especially as regarding the work in connection with the lobster hatcheries, which the Biological Board is carrying on. I think that work will be of permanent utility to the Department.

Also as to the Shad hatcheries experiment, which began in a very small way, and have shown great results. These hatcheries, which were in reality moving hatcheries, and which could be moved from place to place, were certainly a novel idea, and is along the idea of what I suggested some years ago, which ideas, I am happy to say, are being carried out, that is, the idea of moving hatcheries, which could be moved from place to place, and which gave the best results by so doing.

The fishing industry—or, rather the fisheries of Canada naturally—may be treated from the fishermen's point of view. It is a very large subject, and I do not propose to refer to the great fishing industry of Canada in more than a general way. This, no doubt, appeals to many of you—the position of the fisheries as a mercantile enterprise.

We have also the second point, that is, the administrative point of view. This industry is a great national resource. It is not concerned with or concerning one party, or one section of the country, or any one community. It is connected with the whole country of the Dominion, and the Dominion Government naturally feel, and ought to feel, more and more that it is one of the greatest resources of which it has charge, and it was a happy circumstance that the Confederation of the British North America Act provided a place for the federal administration of fisheries.

Then the third aspect of the fishing industry. They are the source of food for the people, and that is a question which the people have hardly yet realized. They have not yet realized the value of fish as nutriment and food supply for the people.

This is a resource which is independent in many ways of circumstances that are seriously affecting other resources of our country. Mines, for one, have already been referred to as a resource that may become extinct unless properly conserved, and it is the same with the other great resources of the country, while the fisheries, one of the greatest natural resources, are practically inexhaustible in the great inland waters and the great seas.

It is true that much may be done by hatcheries in the inland waters, and in the seas where this great industry are carried on, and much has been done, and we should, therefore, look upon the fishery industry as one of the greatest, if not the greatest, natural resource of our country to-day, (applause.)

Mr. Hazen has emphasized this question to-night. It has four aspects. First, is the great international aspect, and we feel that Canada, with this great fishery question, should look for some co-operation with our great neighbour to the south of us, and I feel sure that the Honourable Minister Hazen will agree with me, that we may look forward to some better co-operation with the United States in order to preserve, on the Atlantic and Pacific coasts, the great natural resource of both nations, (applause.)

The interest of both must be considered, and in each of these aspects to which I refer, we must not put any unnecessary burden, or any unnecessary obstacle in the way of progress.

I have heard it said that the fishermen, those original producers, hand over their catches to the merchants and distributors, but are endeavouring to deal directly with the great markets of the interior. The fishermen are said to have an easy time to make money, and lots of it. Gentlemen, those of you who have been out in their vessels as I have been, and seen them going out late at night, and coming back early in the morning, going out at all hours and in all kinds of weather, suffering hardships which are almost unsurmountable when they were working—gentlemen, I tell you that the fishermen earn every cent he gets, (cries of hear, hear.) The risk to life and property; the outfit that he has to provide for himself, boats, nets, and gear, and the hard labor which he has to undergo, makes his work far from being easy.

I remember, speaking of the easy money they are supposed to earn, that at Lunenburg, one of the best fishing boats had returned, and the yield from that boat was considered favourable, and he got five hundred and ninety dollars as the return for the whole year's work, and that was considered a very fine return. Perhaps it was, but it was well-earned money, and I think that the fishermen have a claim upon us which we should never forget, a claim for consideration upon us, which it is our bounden duty to consider (applause).

Then the big merchant has to be considered, too. He cannot be left out in the cold. He takes big risks, (cries of hear, hear.) He takes a great risk.

Then, gentlemen, there is the competition that is to be met. They have a perishable article to handle, and the Department could do a great deal to help them in that. This is a question that should be carefully considered, so that the task of the Department of Marine and Fisheries is no easy one. It is a question that should be considered and given every consideration by the Department at Ottawa, and I believe that it has been given careful and full consideration so far.

But, gentlemen, I do not intend to pursue this subject at any great length. I am standing here before you to-night, in the capacity rather of a scientific expert, one of those officials that are looked upon with some suspicion both by the fishermen and by the merchants.

But the scientific men after all have the interest of the fisheries at heart when they take up the study of a problem, and you may depend upon it that when a scientific man takes up the study of a problem concerning this great industry, with his exact methods, he is going to give you some result before very long.

I should like to say that the work which has been done so far by the Biological Board — a work of a scientific nature — has not been very well supported pecuniarily. The workers are men who have devoted their time to this work without salary, and were handicapped by lack of funds to a certain extent, but the Honourable Mr. Hazen came to the rescue in a most handsome and generous way, and the Board feel very much indebted to the Honourable Minister for the generous and handsome way in which he met the difficulty, (applause), and gave them full scope and abundant means, and even if you do not see the results already, the Biological Board have been able to show some results, and will show more, owing to this very generous act of Mr. Hazen's (applause).

In conclusion, let me say, that if the members of this Association and the fishermen throughout the country will pull together at the task they have of protecting this great product of the sea, of the Lakes, and of the rivers, there need be no fear for the future of our Fisheries (applause).

THE PRESIDENT: We have listened with great pleasure to Dr. Prince's address, and I am sure with some profit also, because his remarks coming from one who is recognized as an authority on all matters pertaining to fisheries, always do carry great weight with the people actively engaged in the industry as our members are.

I have now much pleasure in calling on Mr. Chambers, representing the Minister of Mines and Fisheries of this province, and since our meeting is being held in the Province of Quebec, I want to assure him of a very hearty welcome.

MR. CHAMBERS: Mr. President, Mr. Minister and Gentlemen: My first word must be to deliver the message entrusted to me by the Minister of Colonization, Mines and Fisheries of Quebec, expressing his deep regret at his inability to be with you to-night for the reason that there was quite a probability that something of intense importance to his Department would be up before the House of Assembly this evening.

I have also to convey to you the regrets of our Deputy Minister, Mr. Dufault, who in the absence of the Minister has hoped to be here himself.

The Honourable the Minister of Naval Service has mentioned a remark attributed to Professor Louis Agassiz as to the benefit of fish as a brain food, and it has come down to us as a matter of more or less authority that a young person who is impressed with the necessity of acquiring wisdom, and having read this remark, wrote to our late lamented friend Mark Twain, and asked him what he thought of it, and if he thought it a good thing to eat fish, and if so about how how much fish diet he recommended him to eat, and Mark Twain wrote in reply, and said "I have carefully studied your letter, and from it have tried to form an opinion on your character and disposition and I should say I believe what Professor Agassiz has said, and I think a fair regime for yourself would be about two whales per day."

Now it is not the fault of the Honourable the Minister of Fisheries or his Department that we have not been educated up to eat about two whales per day. They have certainly carried on a magnificent crusade in the way of educating the public of the Dominion of Canada as to the value of fish as a food. When I first received the first instalment of the book in regard to the use and cooking of fish, I got as generous a distribution of it I think as I could get, and there arose a big demand in our Department to know if we could not get French copies. The demand has been very great in Quebec and vicinity for copies in both French and English of that work.

I do not suppose at this hour it is necessary to say very much more. I might refer to a remark which was made however: I think it was Dame Julianna Barnes who wrote one of the earliest samples of Anglo Canadian literature that came to us in printed form giving a story telling us fishing dated from the time of the subsidence of the waters in the flood, and talking this over, a friend some time ago said he wanted to know where they got the worms for bait. If our good friend the Minister had been on the ark there would have been no need to ask that; they would have been hunting through their fly books to pick out the fancy Silver Doctor, etc., and all would have been found ready for the subsidence of the waters.

Speaking of the Province of Quebec I have little to say for it in regard to the fisheries. We are in this position: We have immense shoals of fish on our coasts, and there are immense quantities of them captured, but there is very little in it even for the consumer of fish in the Province of Quebec, or yet for the fishermen who catch them. I do not know if there is any possibility of this Association devising some means to get the fishermen better prices, or through the transportation companies or Government to get the fish from the fishermen to the consumers in the cities of Montreal and Quebec, say, and the rest of the province. Of course I wish the Lower Provinces the best market and prices they can get. But we would like to put a little of our own in. When I was at Grand River, in the Baie de Chaleur I had a most beautiful piece of cod broiled, right out of the water. This was about 12 o'clock in the day and it had been caught that morning, and I made inquiries and found the fisherman got about one and a half cents a pound for it. When I left there I took the train for Quebec and next morning in Quebec I sent to the fish store to get a piece of the same kind of fish for lunch, and they said they had not any, but the next best thing I could get was haddock at twelve or fifteen cents a pound. That is the condition of affairs in Quebec between the fisherman and the consumer, and I do not know where the remedy is to come in. I am looking for information and we are very anxious to get it.

There is only one other little message I have to deliver, and it is this: Conservation I thoroughly believe in. Some things look as if they were going to be conserved for ever like our great big lakes in Quebec. The fish have never been taken out of them until within the last year or two. We have issued licenses for a few of those large lakes lately, and a few of the firms have been receiving consignments from Kippewa such as pickerel or dore, or lake trout, and white fish. Now, any of the dealers handling these fish who wish to know the names of those to whom we have issued licenses, we should be very glad to furnish the names, and correspondence might be had with them, and we shall be very glad to do all in our power to assist in any such matter.

I shall not detain you any longer but I thank you for listening to these few rambling and desultory remarks.

(Song).

THE PRESIDENT: Gentlemen, before calling on the next speaker, I may be permitted to attempt to answer Mr. Chambers' remark in regard to the difference in prices between the amounts realized by the producers of the different fish, and the cost to the consumer in Quebec.

That difference, gentlemen, is surely caused and attributed to transportation. That is where we can always lay the blame, and not without reason. We can always trace some of our troubles to transportation.

I have now much pleasure in calling upon a very good friend of the Fisheries Association, and those engaged in the fishery industry. I need hardly tell you, gentlemen, that I refer to the Superintendent of the Naval Service, or the Fisheries Department, Mr. Found (applause).

MR. FOUND: Mr. President, Mr. Minister, and Gentlemen:—It was not until Mr. Brittain intimated the fact, that I was aware that I was going to have the privilege of saying a few words to you to-night, and I can assure you that at this late hour, the words will be very few indeed, as the field has been eminently well covered.

Gentlemen, I feel very much gratified that I have had the opportunity of expressing to the President of this Association and the members present, my very strong sense of appreciation of the honour that they have done me in enabling me to be with you to-night.

From the standpoint from which I view this affair to-night, it is of more importance than even the tenth or twentieth, or any other banquet which this Association may give, as it proves that the Canadian Fisheries Association has taken root; that it is an established institution, and will from now on, go forward and develop. Its experimental days are past. There have been very few things that have come into life that I have personally looked upon with greater favor, or with more eager anticipation than the birth of this Association (applause).

Those who are engaged in the fishing industry, and who are seeking what they can do to carry on, and to advance the fishing industries of Canada, will appreciate more than I can express in words the necessity only of one branch of the industry, but which I hope will ultimately be thoroughly representative of every branch of the fishery industry.

I think I had better not say anything more at this early hour. All that I might say and all that I would like to say would be in the line of a message, if I might be permitted to give utterance to such, which was suggested to me by some of the remarks of the Honourable Mr. Hazen, and that is, that the Canadian Fisheries Association as it goes on will have, what might be termed, an adequate sense of the importance of things —of the relative importance of things. That it will be careful to lay emphasis on the first things first. It is pretty difficult to do that, I fully realize, in a country as big as this, with interests as diversified as they are, with as many different fisheries as there are, where the man of the Atlantic coast is very apt to think that his interest are the ones to receive the first consideration of the Association, and pull all other interests aside. So it is with the man in the Prairie Provinces and the man on the Pacific Coast, but it evidenced now that each one will receive the consideration from the Association that they should receive, and I feel confident that the Association will, in considering these matters, not fail in laying the emphasis in the first instances, on where that consideration will yield to the industry in general the greatest good and bring the best results (applause).

THE PRESIDENT: I have now much pleasure in calling on Mr. Cowie. Mr. Cowie has on many occasions demonstrated to our members the great advantage of close association between our membership, and of the Canadian Fisheries Association and the Department which has done so much for us at Ottawa, and which is still doing many things for us.

Mr. Cowie has given us a further expression of his interest in our work and in our welfare, by contributing at our meeting this afternoon a very important and very valuable paper on the subject which is of greatest importance, a subject which, I may say, will tend to develop to a larger extent, than any other, the Canandian fisheries, within a very short time.

Mr. Cowie has been looked upon by our members and by the Executive, including myself, as one of our very good friends, and we are glad to have him with us this evening, and will be glad to hear from him. Mr. Cowie. (applause).

MR. J. J. COWIE: Mr. President, Mr. Minister, and Gentlemen:—Recently I came across a short historical sketch of the Worshipful Company of Fishmongers of London. This is a very old institution. I think it got its first charter from Edward I, in the year 1212.

This company was originated for the purpose of mutual protection of its members as fishmongers, also for the enjoyment of social intercourse.

Now, in my opinion, these ancient fishmongers showed excellent wisdom in mingling with the social board the discussion of the hard facts connected with the question of competition in commercial life, and I am glad to find that this Association—the Canadian Fisheries Association—has apparently taken a leaf out of the book of these wise men of olden times.

For my part I think I enjoyed being present for a short time at your discussion of business affairs this afternoon, and feel honoured at being asked to address you. I must say that the enjoyment of being present here to-night has been much greater, sharing your hospitality and listening to the flow of witty speech and happy song.

But to come back to the matter of fish. Before sitting down I wish to say this in connection with the Fishery Inspection Act, of which I spoke to you this afternoon, with which we hope to do so much for the pickled industry in the course of the next few years, that although the cry for such an Act has been long and loud for many years, the Honorouble gentleman, who is at

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THE CANADIAN FISHERIES ASSOCIATION HAS HELPED MANY OF ITS MEMBERS TO ADJUST DIFFICULTIES. IT MAY HELP YOU SOME DAY.

present administering the Department, of which the fisheries is a branch, was the first to appreciate the vast importance of such legislation, and he with the natural sympathetic interest of one reared by the seaside, quickly secured the passage of this Act through Parliament (applause), and to him, therefore, is due all the credit for this Act being in operation at the present moment (applause).

I don't wish to say, and I need not say—anything further connected with that particular work, or the work that I am particularly connected with because I talked to you this afternoon comprehensively on that subject.

I would, therefore, before sitting down, just thank you, Mr. President, and members of the Canadian Fisheries Association, for inviting me here to-night, and giving me the opportunity of meeting you and enjoying this very pleasant—and taking part, in this very pleasant evening.

With that I think I have said all that I have to say, and all that is necessary that I say this evening. (applause).

THE PRESIDENT: Gentlemen, before proceding with the next Toast of the evening, I have been requested to call on two gentlemen who are visiting us and who have honoured us to-night with their presence. Two gentlemen who belong to the new Over-seas regiment (applause).

I am sure that amongst our members, as amongst all parts of the community, there is a strong feeling of patriotism, and we welcome in an especial manner the visitors from any of the "peace delegates" for Overseas service in the defense of their and our country (applause).

I will now ask the two gentlemen to favor us with a song.

(At this point Lieutenant J. H. Foley, accompanied by Lieutenant B. A. Neville, at the piano, both officers of the 150th, C. E. F., of Montreal, rendered a song, received with great enthusiasm by the members and delegates present).

THE PRESIDENT: The hour is getting late, but before leaving the banquet hall, I wish to call on Mr. Harpell to propose the toast of the Press. In our Fisheries Association, like all good Associations, which do not fear, but rather look for the light, we are very much interested in the Press, and look upon the Press as one of our best mediums, since it gives the publicity for which we are looking. I have now much pleasure in asking Mr. Harpell, a gentleman of the fourth estate himself, to propose the toast of the Press.

MR. HARPELL: Mr. President, Mr. Minister and Gentlemen: The excellent messages of instruction and inspiration that it has been our pleasure to listen to-night are not going to be confined within these four walls. We have had with us to-night representatives of all the local daily papers, representatives of the special press, such as Mr. Beaudry, who has been here representing Le Prix Courant; Mr. Bates of the Journal of Commerce, Mr. J. C. Ross and others, and last, but not least, the editor of our own good paper, THE CANADIAN FISHERMAN, in the person of Mr. Wallace.

My remarks are going to be brief, and those who respond to the toast will be likewise brief, because most of those gentleman have already departed, and have conveyed the messages that have been delivered so well here to-night to the type setters in the local shops, and to the telegraph wires that are speeding them to all parts of the country, and some of the excellent ideas and excellent information regarding Canada's second greatest national resources, second only to agriculture, will be read in the morning and evening papers, and for days there after through the medium of the press.

The Press, after all, is only a medium, and it behooves the industry and sphere of activity in the country to produce the copy which they wish to appear in the Press. Unfortunately, often, if they do not produce the copy which they would like to see, there will be other copy produced by those who have not had the same opportunity of knowing the needs of the industry, and while their intentions are always the very best, yet the copy is not the best.

Now, one of the greatest efforts on the part of the Press is to encourage those within the industry to give the general public the benefit of the information which they have, better than those outside the industry, and I think we owe a great deal to the efforts of Mr. Wallace in that respect. He has succeeded in tapping many a fountain throughout the country regarding the importance of the fisheries which we did not think existed before Mr. Wallace came on the scene, and one of the great values of a paper such as THE CANADIAN FISHERMAN is the production of the copy and getting it into papers that necessarily have a much larger circulation than the paper Mr. Wallace edits, whose circulation is confined very largely to the industry, but it has been a great pleasure to Mr. Wallace, and of considerable value and profit to the industry, to see how consistently Mr. Wallace's articles, editorials, etc., that have been so well written, have been recopied into the daily press. Only yesterday Mr. Wallace showed me a paper from a far distant outlying district of the Dominion in which it had over a quarter of THE CANADIAN FISHERMAN copied.

At this late hour we have only two representatives of the Press with us, as I stated before, Mr. Wallace, whose modesty inspires a request that he shall not be called upon, and Mr. Bates, representing the Journal of Commerce, who has kindly consented to say a few words in reply to the toast of the Press.

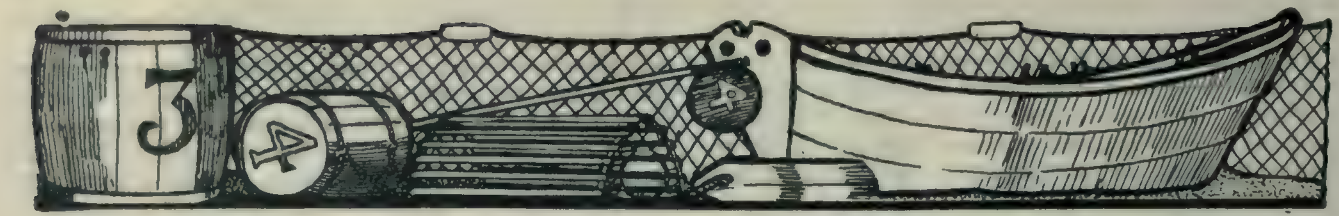
I therefore couple the name of Mr. Bates with the toast of "The Press," and ask you, gentlemen, to drink it with me.

(The President called on Mr. Bates to respond to this toast, which he did.)

THE PRESIDENT: I think that is the end of our Toast List. It will be the end of our annual banquet, and it is my duty to thank you for giving the careful attention you have given to the speeches, and it is also my pleasure, in your behalf, to extend in a general way, our heartiest thanks to the gentlemen who have honoured us with their presence this evening as our guests.

We will go on, and we hope this will give us heart to go on and make further progress in developing, and we shall develop, one of our greatest natural resources, the Canadian fishing industry. I thank you.

THE FISHERMAN WHO JOINS THE CANADIAN FISHERIES ASSOCIATION IS THE MAN WHO IS HELPING THE INDUSTRY ALONG.



THE ATLANTIC FISHERIES

ARICHAT, C.B.

(Special Correspondence.)

The fishing season that has just closed with the setting in of winter, has been very successful. So far as the fisherman is concerned, the spring haddock fishing began somewhat earlier than usual, as the haddock began to take the hook as soon as they struck in on the shore. Some springs they play around a month before they will take bait, and come right into the harbours, but this year there was none taken in Arichat Harbour—something that has not happened for a number of years. The greater part of the spring catch was salted and dried, about four thousand quintals, all going to the Halifax market, and bringing a fair price.

The remainder was bought fresh and shipped by the different fish firms at Hawksbury, Mulgrave, Canso and Queensport. They send smacks and collect them on the ground from the fishermen—paying cash on the spot. Those fish are caught on trawls floating from two to six fathoms from the surface. This kind of fishing ends about the last of June, then the herring fishing begins, and this year has been an exceedingly good one. After that is finished the sword fish make their appearance, and has also done much to add to the fisherman's season's stock.

About the time sword fishing is over the fishermen are preparing for the squid fishing, which has been a great boon for the last two falls, owing to the high price that has been paid—50 cents a bucket, and in some cases higher than that. These are bought by the local fish buyers, and put in cold storage for fall haddocking, and sold back to the same men that catch them. About $3.00 per hundred is the price that we have to pay for fait for fall fishing. The winter and fall fishing is carried on from Petite de Grat—a small harbour on the south side of the Isle of Madame, open to the southwest, and south and southwest winds, blow right in and make it very rough in storms. The water is shoal, and the holding ground is good, therefore not much damage is done if boats are well prepared with chains and anchors. There are no range lights, and a very poor red light to guide one in at night. As the old fisherman terms it, "a burnt hole in a blanket" would show much better. We have a bell and gas buoy combined, which is a great thing. It is moored off the entrance of the harbour, a few hundred yards, but unfortunately our Government steamer of the light and buoy service came down and took it away at the beginning of winter fishing, which caused some uneasiness to the fishermen operating out of this place, and the cause of one boat going ashore, and the owner meeting with considerable loss. This buoy was put there for this very purpose, and should be left there until the fishing season is closed. The buoy on the Cerberus Rock was not taken away for a month later, which is in a more exposed position than the buoy spoken of when the ice begins to run. The fishing boats are about all fitted with power, and a fine class of boat they are, numbering about thirty in all.

The catch of haddock, between four and five hundred thousand pounds, bought by the different buyers, namely, A. R. Loggie, A. L. Comeau, J. A. Landry, Maritime Fish Corporation, bring on an average of two dollars a hundred pounds. This has been one of the roughest Falls we have had for some time; it has also been a wet season for the fish drying business;; the fish referred to in the foregoing has to be all dried in the sun, which has to be carried on in the face of great difficulty in a rainy or wet season. A greater expense is added under those conditions. Dry fish have been about all handled in Petite de Grat by the local merchants. Messrs. J. & W. Jean have bought a large quantity of fish this season, being an old and well established firm in that place. Robert Martell is also handling a fair share and doing a thriving business. J. A. Landry also buys and runs a grocer business in connection. Altogether Petite de Grat is a thriving fishing village, and very central and handy to the fishing grounds. We only want to be looked after by our Government, and the lives of our fishermen and their property protected by having this harbour properly lighted, and aids for navigation that fishermen enjoy in other places.

CANSO NOTES.

(Special Correspondence.)

Speaking locally, we are now in the slack season of the fishing year, and, as a consequence, things are rather quiet among the boat fishermen in this vicinity, although all are preparing for the active days to come. The winter haddocking, on account of the unusually open (though rather windy) nature of January, and the early days of February, was kept up with fair success considerably later than for many years past; though with a gradually dwindling fleet, during the finishing-up weeks. The price during the winding-up days did some real airship stunts, soaring by leaps and bounds until it reached a figure, probably never paid to the boats here before—certainly not, so far as the writer can remember. On January 28, fair catches were made for which the catchers received the very acceptable price of 5½ cents a pound. Your correspondent was told by a fisherman, of a haddock brought in that day, which, we imagine, can lay a clear claim to the proud title of being the highest priced fish of that kind, ever landed in Canso. We refer, of course, to the price paid to the catcher. The fish in question weighed 18 pounds, and at five and one-half cents, brought 99 cents to the man who landed him. Somehow, we would like to follow up the further history of that interesting member of the finny tribe; where he was picked up, who picked his bones and what he cost the party or parties that finally consumed him. On February, the few boats that were still in the game got out of the grounds, but found the fish on the scarce side. This, I think, was the final day for the shore boats. The weather grew more severe, and some drift ice, enough to hamper operations for these craft, began to put in an appearance. The steam trawlers Rayondor and Andromache are still continuing operations, bringing in large fares each week-end, landing at their latest trip over 100,000 lbs. apiece.

A steady spell of clear, frosty weather during the winter months produced a splendid crop of clean thick ice, and the various fish firms have just completed filling their icehouses with a goodly store, to supply the needs of the summer fishing.

A. A. Zinck, of A. Wilson and Sons, has returned from an extended trip to Sydney and other points, connected with business of the firm's branches there.

CHARLOTTETOWN, P.E.I.

(Special Correspondence.)

The lobster fishermen and packers are making extensive preparation for the opening of the season on April 26th. Supplies are being procured, traps made, and equipment overhauled.

Last season the uncertainty as to the condition of the market, arising out of the war, caused delay in preparations, and the usual number of new traps were not built. This year, now that the uncertainty has been removed, and a market assured for the catch, the preparations have assumed their normal proportion.

In 1915 the fishermen received $1.50 per 100 lbs. for their lobsters, where the owners of the canneries supplied the equipment, or $3.00 where the fishermen supplied their own equipment

The price this season has not yet been fixed, but the fishermen are demanding an increase. The packers reply that while they expect to receive $1 per case more than last year, they have to take into consideration the difficulty of securing transportation, the higher freight rates, the high rate of exchange, and increased cost of tin plate, rope, gasolene, etc.

The greater part of the Island pack will probably be sent to Europe, mainly to France, where much of it will be consumed by the troops.

Last year several Island packers had a considerable quantity on their hands, during the glut on the market, but eventually they were able to dispose of the fish at satisfactory prices.

It was about the middle of May, or nearly a month after the legal date for opening, before any lobsters were taken around the Island, last season, and as the season closed June 30th the majority of the canneries had to depend on a month's actual fishing, the delay in starting being due to the ice remaining so late around our shores. Despite this fact, the lobsters were plentiful, and the catch on the whole did not fall very short of the average, except along one section of the north shore, from Tracadie to East Point, where, owing to ice and stormy weather, there were only fifteen days of actual fishing.

Whilst there will be an increase in the number of traps this year, over last, there will be about the same number of canneries in operation. The fact that quite a number of fishermen have enlisted since the war broke out, will cause some shortage of male help, in several localities.

There were complaints in the western portion of the Province, about fishing out of season last year, and the suggestion is made that in order to enforce the law, a special Fishery Police should be organized somewhat along the same lines as the Northwest Mounted Police, who could patrol the Island.

It is contended that as a result of illegal fishing that a good deal of inferior stock found its way on the market to the detriment of the Island pack as a whole.

There are about 5,000 fishermen and about 4,000 operatives in the 196 canneries on the Island, and the average pack in recent years has been about 50,000 cases. Last year the average price per case was between $13 and $14.

There appears to be general satisfaction with the lobster regulations in the Province, although in the case of the fishing starting late owing to ice, and the catch being poor in consequence, the demand for an extension, say, for ten days, would not be unreasonable.

With a stricter enforcement of the law regarding the close season there should not be much ground for complaint.

DIGBY, N. S.

(Special Correspondence).

Since my last correspondence the fishing industry here has been very quiet. The large stocks of Dry Hake, which were cured and stored during the summer, have practically all vanished, leaving a good margin of profit to the local dealers. The bulk of our Pickled Fish has also been shipped to English and American markets, and now it seems to be beyond the power of the producers to get this stock in sufficient quantities to supply the demand. The fish have left the shores and the boats, which are not engaged in the lobster fishery, are hauled up until about the middle of April when they will start fishing for cod, haddock and pollock with hake due about the first of June. In the meantime the boats and their engines will be thoroughly overhauled with the object of making them more speedy and seaworthy for the next season's fishing. Up to the present the off-shore fleet have had a very unsatisfactory season. Their only salvation now is good fishing on Brown's and similar banks. They have succeeded in procuring only one trip each on Brown's after being away from here since the middle of December, and in the meantime they secured an occasional "dip" which had to de disposed of in the nearest market to where they took refuge from the stormy weather. This continued scarcity of fish has had the effect of raising the price to unprecedented heights and fresh haddock have been costing the producers as high as 5½c a pound, and the price of finnan haddies has therefore been higher this season than ever before in the history of the business.

The auxiliary schooner "Cora Gertie" was unfortunate enough to touch her keel on the West side of Digby Gut while coming in against a strong ebb tide on the evening of February 7th. She remained stranded there for about four or five hours until the ebb tide turned ond rose sufficiently to float her. The crew of the Life Saving Station at Bay View deserve a lot of credit for their assistance in getting the vessel off without any very serious damage being done. They were unable to launch the life boat while the tide was so low and had to go to her assistance in a couple of dories. Just at the time she was being floated, a strong easterly wind started blowing and a serious disaster was narrowly escaped.

On February 6th, shortly after noon, fire started in one of the smoke houses of J. E. Snow's plant. It was successfully confined to the biulding in which it started and Capt. Snow was not seriously inconvenienced by the loss of this house. He imemdiately started the erection of another one.

Last year's scarcity of ice prompted the local ice and fish dealers to take full advantage of the fine crop of ice which formed during the recent cold weather. For the past week the ice business has certainly been a flourishing one and there should be plenty of it now stored to take care of the requirements of the fish business next season.

The vessels have landed here during the past month as follows:

Jan. 24th,	Cora Gertie	21,851 lbs.
29th,	Dorothy M. Smart	37,779 "
30th,	Dorothy G. Snow	74,000 "
Feb. 1st,	Cora Gertie	16,651 "
	Albert J. Lutz	69,772 "
8th,	Cora Gertie	20,292 "

Fish shipments originating from this port during the month of January aggregate as follows:

79 bbls.	Fresh Fish	8,916 boxes	Smoked Fish.
1 case	Fresh Fish.	10 casks	Dry Fish.
17 bbls.	Dulse.	455 drums	Dry Fish.
4 bbls.	Oil	176 bbls.	Clams.

LUNENBURG, N.S.

((Special Correspondence.)

Some of the Lunenburg schooners have been making record trips during the past few weeks, notably the Elsie M. Hart, Captain Vallis, which arrived on the 17th inst. from Torre Vieje, Spain, after a 29 days' run which is said to be the quickest trip ever made by any schooner out of this port. Her whole trip from Lunenburg to Lunenburg occupied exactly three months.

The schooners Jennie Ritcey, Naas, and Ada M. Westhaver, Mason, each made 26 day runs from Cadiz, which is also good sailing.

Captain Mason, of the latter ship, reported, on his arrival here on the 16th inst., that he boarded the abandoned bark Bruce Hawkins, Captain MacIvor, of Philadelphia, lumber laden from Mobile for Huelva, in latitude 34 deg. 11 min., longitude 64 deg. 12 min., and found the vessel water-logged, with every sign of a hurried departure. It is supposed that the crew were taken off, as the ship's boats were still on deck. Captain Mason states that the clock was ticking away, and it would appear that the crew had only left the previous day.

The tern schooner David C. Ritcey, Ritcey, on passage to Brazil, put into Barbadoes for repairs to damages sustained in a hurricane.

The schooner Eva C., Gerhardt, arrived at Pernambuco on the 16th inst, after a 30 days' run from Halifax.

The schooners that are bringing salt now are transferring their cargoes in part, to the bankers lying at the wharves, thus saving double handling. The Frances W. Smith, Wynacht, andJ. H. McKenzie, Geldert, have each arrived from Cadiz salt laden for W. C. Smith and Company, and the schooners B. C. Smith, Corkum and Assurance, Zinck, are on passage from the same port with a like cargo. The schooner R. J. Dale, Lohnes, arrived at Pernambuco on Feb. 14th.

For Zwicker and Company, the Mayola, Wentzell, is due here from Cadiz; the Amy B. Silver, Naaffts, after a 10 days' passage out to Trinidad, and the F. M. Toro, Geldert, is on passage from Turk's Island.

The schooner Caranza, Lohnes, sailed for Ponce, on Feb. 11th, and the Lloyd George, Himmelman, is loaded for Porto Rico. The last passage of this schooner, sailed by Captain Harold Corkum, was surely a winner. She was 9 days on passage to Ponce, and 7 days from Turk's Island to Lunenburg. The trip from port back to port only covering 27½ days.

The schooner Ida M. Zinc, Captain Elzear Zinck, has been doing a few stunts in the bread winning line. From April, 1915, to date, she has been steadily employed, and her owners have a dividend of $4,200.00. After having her sails repaired, she will be off on another foreign voyage.

The schooner J. D. Hazen, Captain George Himmelman, had an exciting trip recently on passage from Bay of Islands, Nfld., to Gloucester. Ten American schooners left that port along with the Hazen, two of them, the Pollyana and Romance, who were counted "right smart sailors," having a six hours' start of the rest. At Beaver Island the Hazen had caught up to the Romance, in the teeth of a very heavy breeze. The Gloucester schooner shortened down, while the Lunenburg flyer never hauled an inch of canvas. At Cape Sable the two rounded the buoy at precisely the same time, and the Hazen, keeping on her sail, hauled into Gloucester six hours ahead of her competitors. There was keen disappointment in that port when it was found that the "Bluenose" had trimmed the fleet.

The schooner Wautauga, Capt. Lorraine Backman, also made a remarkable run from Cadiz to this port, her time being 24½ days, four days of which she was becalmed, and did not make fifty miles a day. She carried salt for Adams and Knickle. Two other schooners are also due with salt from the same port for this firm, the Marion Adams, De Coursey, and the Phyllis Westhaver, Tanner.

The schooner Mark Tobin, Capt. Fred Richard, is due at Barbadoes from St. Johns, Nfld.

A number of vessels have been sold to purchasers at Newfoundland, among them being the Lottie Silver, Gladys Smith, and the Falka from the Lunenburg fleet, the price paid for the latter was said to be $8,300. The La Have schooners Cyril and Guy are also sold to purchasers at St. Martins.

IN NEW FOUNDLAND.

(From Our Own Correspondent).

Since last issue we have had quite a movement of fish products, especially herring. This has been the greatest season in the history of the herring fishery, since the olden times when we shipped such large quantities of Labrador herring directly from the coast. It is estimated that fully 35,000 barrels have been shipped from Notre Dame Bay alone. Most of the catch was put up after the manner of Scotch cure, and should fetch from $9 to $10 per barrel. Should these herring be found up to the requirements of the American markets, it will mean that Newfoundland herring, which for many years had such an unsavory reputation, will in future be a formidable competitor with the Holland and other importations into the United States.

From Board of Trade Reports we find that 42,243 barrels were shipped from the outports during December, and from St. John's, 10,211, making a total export of 52,454 barrels.

The "Trade Review" in a recent issue says regarding the herring pack that there is a danger that some of the Scotch cured herring may not be quite up to the mark, and it scores the "greedy shippers" who have been lured by the high prices prevailing to put up an inferior brand. It says: "Almost a whole schooner load, 700 barrels, dredged in the hold, after lying in bulk untouched for over 5 weeks, were packed into Scotch barrels for the foreign market. This is the kind of greed that is going to ruin the herring trade of the world, and if we give the business a bad name, we shall miss an opportunity of getting a hold on the foreign markets that may not occur again in a lifetime."

This just bears out what we have more than once stated in the premises, viz., that the poor pack is due mainly to the fact that we have no adequate system of Government inspection. It was a similar failure that formerly brought our Labrador herring — the finest in the world—into such disrepute many years ago.

The Western herring fishery at Bonne Bay and Bay of Islands has been the greatest on record; and extraordinary wages were made by those who were engaged in it. We learn that one man and his son made $900 in two weeks out of the sale of herring from the net. A dory crew of three men made $2,100 in three weeks. The Bank Manager is said to have paid out $22,000 in three days to the herring fishermen. Newfoundlanders have fared better this year than ever before; and the Hollett Brothers of Burin secured two loads; brought their herring to Boston, and netted $12,000 on their venture. We doubt if any fisherman can beat these daring and enterprising skippers. There are not only high-liners at the Bank fishery; but they seem to lead in other directions as well. It is not many years ago since they had just two small schooners; now they own four of the finest vessels in Newfoundland. The secret? Push, hustle, and intelligence. There are others who should follow their lead and "go and do likewise."

Newfoundland needs more such men as the Holletts of Burin. They are the biggest factors in our trade; and had we dozens of such men, we should lead the world. We have the harvests to gather but the harvesters are not sufficiently energetic to gather them.

We have only a few others like the Holletts, viz. Capt. John Lewis, Vatcher Cluett, the Inkpens, Thornhill, and one or two others. There should be dozens of such; and there will be probably in the near future, as the inspiration of these veterans must inspire the younger skippers to "get a move on."

At the close of the Bay of Islands herring fishery, so the "Daily News" informs us, herring sold at the extraordinary price of $2.25 per hundred — the highest figure on record. This was due to the desire of the skippers of American schooners to complete their cargoes before the ice formed in the Bay. Notwithstanding this, some of the vessels left with only part cargoes, as the skippers did not wish to take a chance of being caught, as happened a few years ago, when the schooners had to be cut out by the Government cruiser and the Portia.

Opening of the Bank Fishery.

The winter fishery — off the south coast — is now in full swing and encouraging reports have been received, though little fish has been caught owing to the stormy weather which has prevailed since the early part of the month. The outfit for the winter fishery is the largest on record. A few years ago, only a few venturesome ones outfitted for the winter fishery; but now, vessels from Burin, Fortune, Grand Bank, Belleoram, St. Jacques, Harbor Breton and the western ports of Burgeo, Rose Blanche, and Ramea are all employed at it. The incentive, of course, has been the high prices prevailing for fish.

A number of the vessels are using frozen squid bait (procured from Gloucester), whilst the great body of the fleet are using herring for which fancy prices were paid — in some cases equal to $4.50 a barrel from the nets. The herring was secured around Connaigre and in Fortune Bay. So the eastern herring catchers have had their herrings as well as their western brethren.

The bait question is a very serious one for our Banking fleet; and it seems rather singular that we should be importing bait from the United States.

To an outsider it seems somewhat of an anomaly, that the country which has the greatest supply of bait fishes of any country in the world should be obliged to seek bait supplies elsewhere.

The greatest difficulty comes for the early winter trip and the last trip in the fall. It seems singular that the Government does not get down to some practical scheme to relieve the situation. One could hardly credit that Newfoundland has not a bait depot with the exception of a private cold-storage plant, at Rose Blanche owned by the enterprising firm of Harvey & Co. of St. John's. This depot can barely supply the requirements of the owners as they have quite a large Banking fleet besides a large flotilla of small boats and skiffs fishing out of Rose Blanche and the near neighborhood. It is time that somebody became awake and realized the importance of a bait depôt.

The loss of the Banking fleet within the last three years, owing to lack of bait, especially for fall fishing is estimated at not less than $500,000. The Government is an annual loser, and little calculation would demonstrate that the depot would prove a financial investment of the gilt edge variety. It is quite true that for several years, a bonus has been offered to certain corporations for the erection of Cold Storage plants; but the companies never materialized. The two or three tentative efforts on the part of certain enthusiastic individuals ended unsatisfactorily.

In connection with this bait supply, an American newspaper says: "It is a fact that without Massachusetts Bay bait the Newfoundland early bankers which fish off the south coast, Rose Blanche, Channel, and other favored spots, would be unable to prosecute their winter fishery . . . Newfoundland skippers have been begging Massachusetts concerns for bait all winter. They have begged for it, written for it, cabled for it—and the price has been no object. Their big vessels which have come here with herring cargoes, have hung on and almost refused to sail home until safely hayed down in their holds was the spring supply of frozen squid bait. There is now being shipped to urgent order (in addition to what has already been supplied) one million pounds of this squid bait!"

A Serious Fish Problem.

The Newfoundland fish exporters are now confronted with a very serious problem. It is claimed that there is a larger quantity of fish, chiefly Labrador, in the merchants' stores than for many years. It is estimated that the quantity exceeds 350,000 quintals. The merchants are now confronted with the problem of getting it to market. There is an abnormal shortage of tonnage, due to war conditions; and everybody is wondering how we are going to market this immense quantity of fish before the Lenten season. Some few shippers have tonnage enough in sight to market their holdings; but there are others who are in a quandary as to how they can get their stocks away. We have really no local steamer carriers; they have been sold to the Russian Government. Sailing vessels are not locally available; and now that all our bankers are away fishing we are very seriously handicapped indeed. It has been suggested that the Government take up the matter of transportation, and that representations should be made to the Imperial Government for the release of some of the carriers on the other side in order to help out. It is a very serious problem. The markets are good; but we cannot reach them. The exports for the month of December, 1915, were unusually large, notwithstanding the shortage in tonnage, exceeding the exports of December, 1914, by 75,169 quintals. The total exports, including exports from the outports were 185,944 quintals, as compared with 120,775 quintals for 1914.

Exports for Year 1915.

Codfish:	
Portugal, quintals	78,295
Spain	112,818
Italy, quintals	122,691
British West Indies, quintals	89,907
Brazils, quintals	333,968
Dominion of Canada, quintals	6,408
England, quintals	27,523
United States, quintals	7,923
Other Parts, quintals	30,885
Seal Oil:	
To United Kingdom, tuns	802
Other Parts, tuns	201
Coal Oil:	
To United Kingdom, tuns	1,121
Other Parts, tuns	2,567
Seal Skins:	
To United Kingdom, pelts	1,082
United States, pelts	78,950
Salmon	51,109
Herring, tierces	3,009
Whale Oil, barrels	271
Cod Liver Oil, tuns	379
Guano, tuns	164
Trout, barrels	974
Lobsters, cases	5,330

The year 1915 was a fairly prosperous one for the fishermen, and the Colony generally. The cod fishery, whilst rather short in some directions, was profitable owing to the large prices paid for fish, especially for "soft" Labrador. The seal fishery was practically a blank, the total catch amounting to only 47,004 seals—the smallest catch within living memory. The Bank fishery was one of the best on record, the total catch being valued at $1,107,535. The lobster fishery was a failure, the entire pack being 6,000 cases.

The Outlook.

The outlook for the Bank fishery for the coming year is promising; but the outlook for the great winter harvest—the seal fishery is particularly gloomy. It is thought that, with the exception of the "Seal" (Farquhar's vessel—Canadian) only one Newfoundland steel steamer will prosecute the seal fishery, though there is a current rumor that the "Florizel," of the Red Cross Line, will also go to the icefields. At least, such is the current rumor. This means that fully 2,500 men will be unable to secure berths to the fishery; and as they are mostly fishermen (rarely engaged in any other work), there will be a good deal of dissatisfaction. There will be quite a gamble for berths very likely. There is a rumor that two Norwegian vessels will also engage in the seal fishery; but as these sail from a Cape Breton port, they will be of little advantage to the Newfoundland trade.

Scarcity of Salt.

The Colony is threatened with a salt famine this season, unless some immediate steps are taken to meet the situation. Last season fishermen were seriously handicapped at the beginning of the voyage for want of salt; and many of the western shore men had to get supplies from St. Pierre. The carriers which formerly plied between Spanish ports (in the salt trade)—mostly Danish and Norwegian steamers—are engaged more profitably elsewhere; and the sale of our large vessels will add greater difficulties. We understand that recently a deputation from the mercantile body waited on the Prime Minister in relation to the question of importation of salt. The situation was gone into fully, and the deputation received the assurance of the Premier that the matter would receive the immediate attention of the Government. It is hoped that some means will be devised whereby the fishermen will be able to procure an ample supply of salt at the lowest possible rate. It is quite possible that the Newfoundland Government will take up the question of transportation with the Imperial authorities, so that there is every likelihood that everything will be satisfactorily arranged. Should the Government fail to step in, the outlook is indeed quite a serious one. The stocks of salt held at present are very small, and will not be sufficient even to outfit our Bankers and Labrador fishermen. All the vessels that have gone across with fish will of course bring back salt cargoes; but as these vessels are of small tonnage, the quantity that they will freight back will be inadequate to meet the requirements.

The Greek Market.

The agitation set on foot by local shippers and the local press has had the desired effect, and the Greek embargo on our fish products has been raised to the great relief of the business community. The chances are favorable that the Greek market will remain open. Were it to be closed to our fish trade, in view of the immense quantity of "soft" Labrador still on hand, it would be disastrous. There is now apparently an agitation which is gradually gaining strength to have the Government open negotiations for the entry of our fish into the French markets. These are closed to us (in the case of codfish) by a heavy duty; added to which is the "prime," or bounty paid on all foreign-caught fish brought into France. This bounty has been the means of keeping alive the St. Pierre fishery for generations; and were it not for this bounty, the St. Pierre fishery were now as dead as the dodo. We are watching this phase of the situation with considerable interest; and we believe that in order to secure the entry of our fish, for the time being at least, it may be necessary to rescind the Bait Act.

We notice that the Americans are also looking in this direction also; and from a recent article on the bait question in a Gloucester news paper, we quote the following: "It is being commonly talked now in New England fish centres that it is about time Newfoundland 'loosened up' on the bait business, in view of the fact that Massachusetts Bay is really aiding Newfoundland fishermen to make her winter fishery possible by supplying large quantities of squid bait." This generosity on the part of our American cousins is, of course, prompted by good honest Newfoundland money, which pays the cold storage outfits in Massachusetts for its surplus supply of squid.

Waking Up.

We are at last waking up to the fact that we must get away from the old systems, if we wish to keep pace with our competitors in the fish trade. The Board of Trade has actually suggested the establishment of Fishery Schools; and it has collected, so it assures us, some very valuable data regarding Fishery Schools "which will be forwarded to the Government Inspectors of Schools for the Colony, with a view to enable them to formulate some plan, which, with a grant from the Government, should facilitate the introduction of a system to provide a scientific knowledge of the fisheries." Better late than never; and we are glad that something is likely to be done in this direction.

The Board of Trade also recommends that we secure the services of a competent man who would have the necessary qualifications to supervise our fisheries. It suggests a policy similar to that now being pursued by the Canadian Fisheries Department, viz.: "A thoroughly modern steamer, equipped not only with the necessary scientific apparatus (for conducting experiments), but also fitted for practical fishing with modern appliances suited to various bottoms, depths, and different species of fish should be provided." The Board believes (and rightly) "that hardly one-half of the fish producing capacity of the Colony has been reached."

These are hopeful signs. Time was when such suggestions would not have been made by the predecessor of the Board of Trade. The Board has progressive men on its roll of membership; and we believe that the recommendations will have the desired effect. The Government cannot give a deaf ear to the recommendations of such a progressive body.'

Notes.

Crosbie & Co. recently purchased the SS. Lady Sybil, which formerly plied between Pictou and the Magdalen Islands, and the new purchase will be a welcome addition to our mercantile marine. The Lady Sybil is a small, but very serviceable vessel; and she is now on her way to the Mediterranean with a cargo of fish. We hope the firm's venture will meet with the success that it deserves.

It is rumored that Farquhar's two steamers Seal and Sable I. will both prosecute the seal fishery, and they will sail from Channel. The crews of the Farquhar vessels will be taken from the neighborhood of Channel and the Codroys. This will be a boon to the western fishermen. We have not heard who the masters are, but it is quite probable that the veteran Captain Farquhar will command the Sable I.

ST. JOHN'S, NEWFOUNDLAND.

(Special Correspondence.)

Review of Newfoundland Fisheries for 1915.

The year just closed was a very prosperous one in connection with our fisheries and fishery products. The catch of codfish on the whole was larger than that of last year, and together with the high price given, not only for codfish, but all other kinds of fish and fish products, has made the year 1915 one of the most prosperous for our fishermen in the history of the fisheries of the Colony. In a large measure the high price given for our fish may be attributed to the war, which has not only advanced the price of fish, but nearly every article of food that is consumed. Another very strong factor in helping to advance the price of fish and oils in Newfoundland, was the President of the F. P. U.—W. H. Coaker, Esq.—who certainly was, and is a live wire in all matters pertaining to the welfare of the fishermen of the country.

The following is a correct statement of our exports of codfish and other fish products for the years 1914 and 1915, showing the relative increases and decreases for the same periods:

Exports.

	1914.	1915.	Increase for 1915.	Decrease for 1915.
Codfish, qtls.:				
Portugal	19,238	78,295	59,057	......
Spain	90,472	112,818	22,346	......
Italy	116,992	112,691	5,699	......
British West Indies	63,945	89,907	25,962	......
Brazils	341,147	333,968	......	7,179
Dom. of Canada	3,940	6,408	2,468	......
England	13,461	27,523	14,062	......
Scotland	150	......	......	150
United States ..	10,117	7,923	......	2,194
Other Parts ..	65,626	30,885	......	34,741
Seal Oil, Tuns:				
United Kingdom	1,422	802	......	620
Other Parts ..	1,937	201	......	1,736
Col Oil, Tuns:				
United Kingdom	1,199	1,121	......	78
Other Parts ..	3,697	2,567	......	1,130
Seal Skins:				
United Kingdom	93,013	1,082	......	91,931
United States.	156,800	78,950	......	77,850
Salmon Tierces	2,911	3,009	98	......
Mackerel & Herrings, brls. ..	36,552	51,109	14,557	......
Whale Oil, tuns	459	271	......	188
Cod Liver Oil, tuns	81	379	298	......
Guano, tuns ..	174	164	......	10
Trout, brls. ..	1,785	974	......	811
Lobsters, boxes	2,816	5,330	2,514	......

The Shore Codfishery.

The Shore Codfishery on the whole was a most prosperous one—the total catch including the Straits of Belle Isle catch, amounted to 850,000 quintals, at an average price of $7.00 per quintal, which makes a value of $5,950,000.00.

Bank Fishery.

The catch for 1915 was a record one, being 170,400 quintals, about 50,000 quintals of an increase over 1914. The price given for this class of fish ranged from $6.50 to $7.00 per quintal. A total number of

102 banking schooners prosecuted this fishery, engaging as crews 1,606 fishermen.

Labrador Codfishery.

The total shipment directed from Labrador to foreign markets amounts to 107,149 quintals, and the amount brought home to Newfoundland and cured, may be estimated from 160,000 to 180,000 quintals. The average price was about $5.50 per quintal, though in some cases the price went as high as $6.50 per quintal.

Lobster Fishery.

The total pack for the year just closed amounts to 6,000 cases. This is the smallest catch for many years; not that lobsters were scarcer than other years, but owing to a very poor price, and little or no market for same, numbers of fishermen abandoned the fishery. The prices given ranged from $13.00 to $13.50 per case. The quality was exceptionally good, perhaps never better.

Herring Fishery.

As yet the figures of total catch of herring for 1915 are not available, but it is certain that the amount will be the largest known for many years. Not for several years, was there such a large amount of herring pickled in barrels as during last Spring, and this Fall's fishery and Winter catch will be a record one. During the month of December 52,243 barrels of pickled herring were shipped to the United States, in addition to this several cargoes of frozen herring were shipped also. This fishery is still continuing with good results, and will, whilst the arms and bays remain free from ice, and when the waters are firmly frozen nets will be set under the ice, and the work still carried on. All kinds of prices for herring prevailed during the past year, from $3.00 per barrel for Spring catch of an inferior grade, to $10.00 per barrel, which is now being paid in New York for a first class article. It is thought that the pack which has been put up this season along the lines of Scotch cured herring will realize a much higher price than this. The New York Fishing Gazette, in a recent issue, has this to say of our herring: "Newfoundland herring is coming into the market in fair quantities, and the quality is said to be excellent. According to dealers, the stock this year must be classed as very fancy. The fish are much larger than have been seen in New York market in several years, and they appear to be plentiful. There has been some activity during the week, and the demand remains good, despite the high prices. Normally Newfoundland herrings bring from $4.75 to $5.25, but it is actually selling up to $10.00 at the present time."

Seal Fishery.

The seal fishery for 1915 was a total failure, the catch being the smallest known for a long number of years. The total catch brought in by the sealing fleet was 47,000 seals, of a net value of $93,480. Taking one year with another, the value of this generally amounts to a half million dollars; so in last year's catch, the loss was very great. In addition to the seals procured by the fleet some fifteen thousand seals were caught by landsmen, bringing the total up to 62,000 seals for steamers and shore catch.

Greek Market.

The removal of the embargo on our fish going into the Greek market, was good news for the fishing interests of Newfoundland. With such a large amount of soft Labrador fish not shipped, the closing of that market to our merchants would be nothing short of a calamity, and would mean untold loss to our fishermen. It is to be hoped that the Newfoundland Government will also be successful in having the prohibitive duty removed from our fish going into France. France is really in need of our fish, and she is our Ally and is fighting for the same cause with us. Why not then remove those trade barriers so that Newfoundland fish may reach her people, instead of having to buy from Norway and other countries, whose friendship is but a matter of dollars and cents.

New Market for Newfoundland Fish in French West Indies.

The Minister of Marine and Fisheries—A. W. Picott, Esq.—has received a communication from J. E. Denaux, Esq., British Consul at Guadeloupe, setting out that there is a reduction in the duties on codfish entering that Colony, which may make it possible for Newfoundland to make large sales of fish in that country.

In view of this change in the reductions of duties on codfish it is most probable that some of our merchants will take advantage of the same, and place some cargoes of fish in that market. In consequence of the war the Colonial Government of Guadeloupe has reduced the Customs duties on codfish from 48 to 10 francs per 100 kilograms. The quantities of codfish imported into that Colony from different countries during the last two years were as follows:

1913.

	Kilos.
From France and her Colonies	991,990
From British West Indies (Barbadoes)	2,200
From U. S. A.	246
From other foreign countries	1,961
	996,397

1914.

From France and her Colonies	865,940
From British West Indies	10.430
From U. S. A.	5,468
	881,838

The white haddock of medium size, is mostly in demand on the local market, the price of which at present is 110 francs per 100 kilogrammes.

The import duties on codfish at Guadeloupe are now:

Customs—10 francs per 100 kilos.

Octrol—2 francs per 100 kilos.

Statistic—0.15 centimes per package.

Wharfage—0.20 to 35, according to weight.

(Later Notes From Our Own Correspondent.)

Codfish.

The price for merchantable still holds firm at $7.60 to $7.70 per quintal. The tendency in price is still upwards, and once the question of sufficient shipping accommodation for marketing our fish is assured it is quite possible that the price will reach $8.00 per quintal. The price for soft Labrador is $5.60 per quintal. This price is expected to advance also as soon as shipping matters are adjusted. The Customs figures to hand show that the total of exports for dry fish for the year ending June 30th, 1915, was 1,094.242 quintals, as against 1,247.314 quintals in 1914, a decrease of 153,072 quintals. For the past six months ending December 31st, 1915, 912,876 quintals were shipped, as against 735,389 quintals for the corresponding period in 1914, an increase of 187,487 quintals. There is now roughly speaking about 500,000 quintals of codfish remaining in the fish sortes of St. John's to be realized on, and of that amount 100,000 quintals is soft Labrador.

We are again confronted with the problem of getting sufficient accommodation to take the fish to market before the close of the Lenten Season, or at least before the opening of the next fishery. The question is of such vital importance to the welfare of the country that it must be grappled with at once, and to this effect our fish merchants and Cabinet Ministers of the Government met recently, when the seriousness of the situation was fully discussed, and the Government decided to take up the matter at once with the Admiralty and Imperial authorities, as will assure the shipping of all this fish in due time. A fleet of some 30 sailing vessels owned by the merchants of this country are now engaged in carrying our codfish to market, and in addition to this fleet several French, Canadian and American vessels are under special charter in the same trade, all of which take from 3,000 to 6,000 quintals for a load, yet the fish congestion cannot be relieved in time unless a few large steamers can be chartered for the work. The condition arose from our fleet of steel sealing steamers being sold to the Russian Government for ice breaking in the White Sea, and as this was done at the advice of the British Admiralty, it is not too much to expect that the same source will not let our merchants and fishermen be losers thereby.

Cod Oil.

The price continues strong at $147.00 per tun, very little being offered for sale by the fishermen. The season's output is now in the hands of the merchants. Refined oil is $1.30 per gallon, with none offering for sale.

Bank Fishery Opens.

The Bank fishery has commenced this year many weeks earlier than in former years, and many of the fleet are now on the fishing grounds in the vicinity of Rose Blanche. Recent reports from the Western Banks say fish is very plentiful, and with fair weather the prospects are bright for good catches of cod and halibut.

Oporto Market.

The latest conditions of the Oporto market as posted at the Board of Trade rooms on January 20th, was:

	Last week.	Prev. week.
Stocks, Newfoundland	62,215	64,750
Consumption	2,585	3,525
Stocks, Norwegian	820	1,585
Consumption	760	570

Whaler Disabled.

The SS. Cachalot, the only whaling ship which prosecuted that fishery in Labrador the past season was driven on the rocks in a fierce storm in Trinity Harbour a few days ago, but by the aid of powerful tugs she was refloated and will be towed along to St. John's and docked for repairs. It is reported that this ship, the "Cachalot," with four other whaling steamers which have been lying up in port for a year or so have recently been sold to the French Government, and will, as soon as Spring opens, proceed across the Atlantic to take up work in connection with patrol service under the French Admiralty.

Our Sealing Fleet.

It has been practically decided upon that the SS. "Florizel," one of the Red Cross boats plying between here and New York, will prosecute the seal fishery this year, and should she do so the fleet will comprise ten vessels. Nine of these are of the old type, and this fleet will be the smallest number of steamers prosecuting this fishery during a period of fifty years. In 1866 five steamers prosecuted the voyage, 4 from St. John's, SS. Hawke, Bloodhound, Wolf and Ospray, and one from Harbour Grace, SS. Retriever. The latter ship was the largest of the fleet, being 237 tons. In two trips that year the SS. Retriever brought in 23,400 seals, and was in charge of Captain James Murphy, her crew making the largest bill on record, $303.00 each man. The following year, 1867, ten steamers prosecuted the voyage, The SS. Lion, Bloodhound, Hawk, Esquimaux, Wolf, Nimrod, Ospray, Panther, Retriever and Mastiff, the latter bringing in the largest catch in charge of the renowned Captain James Murphy. Her catch amounted to 19,200 pelts. Each year following the fleet increased in numbers, and in 1905, 22 steamers employing 3,532 men engaged in the voyage. This year the fleet will number ten ships, with crews in no case exceeding 150 men each, the owners having recently decided to reduce the number, which means that not more than 1,500 men will take part in this voyage. The fleet will be SS. 'Florizel,'' 1,980 tons nett; Eagle, 418 tons; Erik, 461 tons; Viking, 276 tons; Diana, 290 tons; Terra Nova, 450 tons; Bloodhound, 314 tons; Neptune, 465 tons; Newfoundland, 568 tons; Ranger, 253 tons (all net tonnage).

Halifax Sealers.

We understand that in addition to the Newfoundland fleet, the SS. Seal and SS. Sable, owned by Farquhar and Company, of Halifax, which prosecuted the seal fishery the past few seasons in the Gulf of St. Lawrence, will come to Newfoundland this season and sail from St. John's and Port aux Basques, each of these being in command of Newfoundland sealing captains. The SS. Seal will prosecute the voyage on the N. E. coast of Newfoundland, and the SS. Sable will go to the Gulf.

Newfoundland American Packing Company.

I am pleased to announce the establishing of the above company with headquarters at St. John's, Newfoundland. The company will engage in the packing of boneless codfish for foreign consumption, and will put up several thousand sample boxes of our products, which will be sent in the near future to wholesale grocery houses in all the leading cities of the U. S. The company are offering cash prizes from the best recipes for the preparing of boneless codfish. These recipes will be printed with the author's name and address, and placed inside of every box of fish packed by this company. It is a very attractive way of advertising their products, and the company deserves to succeed.

Herring Fishery.

From Nov. 24th to Dec. 31st, 36 cargoes of herring were shipped from Bonne Bay, consisting of 44,538 barrels of salt bulk, 7,792 barrels of pickled, 75 barrels frozen, making a total of 52,405 barrels of herring. Of this amount 42,500 barrels were shipped to Gloucester 4,250 barrels to Bucksport, 3,106 barrels to Halifax, 1,375 barrels to Eastport, and 1,075 barrels to Bangor. The following is a detailed statement of the shipment made to the end of the year, with the names of the various fish dealers to whom these cargoes of herring were shipped:

	barrels.
Gorton Pew Co., Gloucester, Mass.	22,448
Cunningham and Thompson, Gloucester, Mass.	6,500
Davis Bros., Gloucester, Mass.	3,421
Hollet Bros., "Newfoundland," Gloucester, Mass.	2,906
W. C. Smith and Co., Gloucester, Mass.	2,938
A. S. Trait, Gloucester, Mass.	1,500
Lemuel Spinney, Gloucester, Mass.	1,494
Sylvanus Smith, Gloucester, Mass.	1,303
Robins, Jones and Whitman, Halifax, N.S.	998
Farquhar and Co., Halifax, N.S.	2,117
T. M. Nicholson, Bucksport, Mass.,	4,250
Holmes and Son, Eastport	1,375
Alfred Jones and Sons, Bangor, Maine	1,075

In addition to this amount of herring, these vessels also took away 278,000 lbs. of green codfish, 9 barrels of pickled salmon and 6 barrels of caplin. Up to Jan. 10th of the present year, the herring fishery was confined mostly to the arms and creeks of Bonne Bay, but since then herring in abundance have entered Bay of Islands, which has been for many years past the home of this fish. For the past three weeks big catches of fish have been made, and the prices for frozen herring during the month of January ranged from 80 cents to $1.00, and in some instances to $1.70 a basket. It takes about five baskets to the barrel. The fishery at Bonne Bay continued good until January 25th, when the fish seemed to strike off into deep water. On the 15th of January there were 16 American, Canadian and Newfoundland schooners at Bonne Bay awaiting to finish cargo. Since then all have sailed with full loads. As high as $4.00 per barrel was paid for herring taken fresh from the nets, and never in the history of this fishery did the Newfoundland fishermen reap such a harvest.

The fishery for the schooners of Bonne Bay is now closed for this season. The ice is frozen solidly over the Arm and for some distance out to sea, which will prevent any vessels getting there until navigation opens. From the shore of course the fishery will continue, the fishermen cutting holes through the ice and fishing all through the Winter or as long as the herring remain in these waters. Between 300,000 and 400,000 frozen herring were shipped from Bonne Bay during the month of January to the South Coast of the Island for bait for the Newfoundland Banking fleet which are now fishing on that part of the Coast. Even this amount of herring will not be anything like a sufficient supply for bait purposes and already shipments of frozen herring are being made from Gloucester to Newfoundland to supply the Banking fleet. This procedure in other years would be as it is said "sending coals to Newcastle" but owing to their being no large cold storage plants in Newfoundland and our Banking fleet being largely increased through the abnormal demand there is for codfish, therefore in order that there would be an assured supply of fish this was the only course open to our merchants. In view of the great expansion of the herring fishery in Newfoundland and of its importance to Canadian and American fishermen and fish dealers likewise and because of the spreading circulation of THE CANADIAN FISHERMAN magazine amongst Newfoundland merchants and fishermen with whom it is becoming a most favourable journal, I wish to give herewith an interesting article relative to both the packing and curing of herring and the making of barrels, which article was prepared by Mr. MacBean, recently appointed Inspector of Scotch cured herring for Newfoundland.

To Barrel Makers for Scotch Pack Newfoundland.

"It is quite an easy matter for me, or anyone else in the trade to tell you a better barrel is wanted in which to carry your herring to market in the pink of condition, but a few practical details of how to accomplish this much desired purpose will be of much greater value. As a Scotch barrel maker myself, I hope I am in order in tendering you some advice bearing on this matter. You will then bear with me while I point out to you some errors of the present methods of barrel making in Newfoundland. First: You can never make a genuine Scotch barrel from a cylindrical cut stave with bevelled joint, nor make a real round barrel with wooden trusses, or be able to keep to the exact size of 26 2-3 Imperial gallons, and while a spokeshave may clean your barrel fairly well, yet it only emphasizes the angular shape and does not enhance the general appearance or beauty. All Scotch barrels are made from the square cut stave with square joint. This is the only possible way you can make a strong firm barrel. A set of 8 steel truss hoops, all bearing tight on the barrel in their respective places, these give you the exact size and firmness. The side Pluckers and Flencher give it the necessary polish. With these tools and trusses you get the standard Scotch barrel, and don't forget this is the class of barrel that the whole of the dealers in Scotch pack demand. And when you come to put up a fancy pack for Russia, where you will get a fancy price, you will find your package none too strong for that far off country. Remember, our competitors for the first place are the Dutch, Norwegian and Scotch, all giving of their very best, and have had a long start on us. Then for Heaven's sake let us have done with trifling of all kinds absolutely, faltering with business trouble never solved it. Let us show that we possess the brains and courage of our race, and dash at it with both hands, and our difficulties will vanish like dew before the sun.

When war is over and supplies of first class pack are pouring into the U. S. from Holland, Norway and Scotland, when every packer in Newfoundland will be left to market and consign his own product, how are you going to meet the case? You all know what it means to ram an inferior pack on a glutted market. We have seen this in the past, when Newfoundland Scotch pack so called went a-begging at $4.00 per barrel, with freight and commission to come off. We know very well the American fish firms are going to purchase largely the European herring to meet the tastes of their various customers. When that comes about Newfoundland herring will be more or less neglected. But why should we be confined to the States for the sale of our herrnig? There are more and even better markets than the States. These are to be found in Europe ready to our hand right off. Why not let us conform in every detail to the requirements of these markets? It's a case of wholesome fresh herring, culling, salting, and a sound strong package. All this is within our reach. We possess all the essential materials for supplying the article wanted. The only lack is a little knowledge and organization. Let me show how particular these consumers are. If 5 herrings are found in a barrel of a class to which they don't belong the whole lot presented for inspection may be rejected by the Scotch inspector. To obtain this uniformity of cull one cooper is placed over every six gibbers to watch the culling tubs with measure stick, all the time of gibbing; also one cooper looks after the same number of packers. Nothing is left to chance. The word "thorough" meets the case. But don't forget, these details bring the price, and the practical thing for us is to go and do likewise."

In addition to the herring fishery of Bonne Bay and Bay of Islands, the same fishery was carried on in Notre Dame Bay this season, and with marked success. Some 50,000 barrels of herring were taken there this season, and most all were put up under the Scotch cure. American and Canadian agents who purchased the catch paid from $7.00 to $10.00 per barrel f.o.b.

The great drawback in Newfoundland this season in connection with the herring fishery was for the want of properly made barrels for putting the herring up according to Scotch cure. There are no regular factories engaged in making these kinds of packages, and our people are more or less dependent upon importations from abroad, which the past year was most uncertain, and the quality that was imported was not by any means as good as it should be. In fact, some of the barrels imported were second hand goods, and cost landed $1.70 each, and were not as good as the local made article, which cost only $1.35 each. That our fishermen cannot procure plenty of barrels, and of the right material and make is, to say the least of it, a great neglect, and shows that those whose duty it is to see that this industry is looked after are neglecting to provide the essentials, which mean so much in the expansion, growth and prosperity of such a great industry. In a country like Newfoundland, which has abundance of suitable woods for cooperage stock, our spruce wood has no superior the world over, our birch wood and juniper are excellent hardwoods, our pine is soft and easily dressed, and we can supply plenty of labour at reasonable wages, yet, notwithstanding this, we have to send abroad for herring barrels. But even then we cannot secure enough to meet the demand. With all the raw material at hand it should not cost so much to start a barrel, stave and box factory that could meet the demands of our fishermen. It seems to me what we need is some one with initiative enough to make a start. Your correspondent will be pleased to discuss the merits of such a proposition with any of the readers of the "Canadian Fisherman." He is already in correspondence with some American parties who are interested in this idea, with the object of establishing a factory in the country.

Prices in Italy and Greece.

The price given for codfish in Italy at present is about $2.00 less per quintal than that given in Greece, and it was a most fortunate thing for our fish merchants that the embargo on Newfoundland fish going to Greece was removed. About 50,000 quintals of fish was shipped to Greece up to the beginning of this year, and if that amount of fish did not reach the Greek market it meant a clear loss of $100,000 to the fishing interests of Newfoundland. It is evident the Italian fish buyers were going to take ample advantage of our predicament if our fish was shut out from Greece, and it is not unlikely that Labrador fish would fall considerably low in price.

New President, Board of Trade of Newfoundland.

On January 25th, the Board of Trade held its annual meeting, and I am pleased to announce, elected as President R. B. Job, Esq., of the well known reliable mercantile firm of Job Brothers and Co., Limited. No better and more popular selection for the position could be made, as Mr. Job and his firm are amongst the largest importers and exporters in the Colony, and certainly are the largest purchasers of fish oil, seals, and all fish products. The firm of Job. Bros. and Co. is one of the oldest business establishments of Newfoundland, and apart from their Newfoundland trade they have branch business places in Liverpool, England, New York, and Halifax, N.S. Besides their extensive connection with the fisheries, there is not an industry in the country with which they are not associated, and helped or patronized. Mr. R. B. Job's brother, the Hon. W. C. Job, who is a partner of the business in Newfoundland, left last Fall to reside in New York, as he was promoted to take charge of their large business interests in that city.

Science and Fishery.

It is pleasing to note that the Newfoundland Board of Trade has taken up the question of Technical Education in Newfoundland, as it affects the fisheries of the country. The following recommendations have been made to the Board by a commission appointed to investigate on the above matter: "That some attempt should long ago have been made to investigate in an intelligent, comprehensive and scientific way the waters and fishing grounds contiguous to the shores of the Colony and Labrador.

"They respectfully urge that as soon as necessary financial and other arrangements can be made, this work should be undertaken.

"The Commission is of the opinion that the services of a thoroughly competent man, combining scientific training and practical knowledge of the fishing industry, should be engaged, and that within certain broadly defined limits, he should be given the widest possible discretion in the pursuance of his work. He should not be hampered in the selection and remuneration of his assistants, or in the expenditure of whatever sum it may be found possible to provide.

"We have practically no detailed knowledge of the ocean bottom round our coast, nor has there ever been an intelligent attempt to locate new fishing areas, which unquestionably exist.

"The defined ocean layers, their depths and characteristics, the various currents, the occurrence of plankton and other marine organisms, mare plants and their bearings upon ocean life, the occurrence and migration of herring, and the occurrence of halibut and other kinds of fish, the study of variations of temperature and salinity, relative annual catch, the testing and trying out of different methods of fishing and curing, experiments with bait, and a host of other matters are calling for investigation.

"A thoroughly modern steamer equipped not only with the necessary scientific apparatus but also fitted for practical fishing with modern appliances suited to various bottoms, depts and different species of fish.

"Investigations along these lines have been pursued with exceedingly valuable results in other countries, and it is not too much to say that the whole future of Newfoundland depends to a very great extent upon the successful result of such work here.

"It is an almost universal belief that hardly one-half of the fish producing capacity of the Colony has been reached, and the Commission fully concurs in this view.

NOTES ON FOREIGN TRADE.

Market for Codfish in Brazil.

An important business is done at Bahia in codfish, of which 129,000 drums were imported in 1914, a year of exceptionally depressed financial conditions and small imports. Custom-house figures show the following values of imports of codfish here during the past three years; 1912, $1,161,750; 1913, $1,296,864; 1914, $1,220,232. Perhaps 90 per cent of the fish come from St. John's, Newfoundland, and Halifax, by sailing vessels direct, and some via New York by steamer from the same origin. Before the European war some codfish came from Norway via Hamburg. The Newfoundland fish arrive in drums of 128 pounds, and half drums of 64 pounds net, while those from Norway were packed in cases. Nearly all the business is now done through Liverpool firms, who have branch houses or agents at St. Jonh's and Harbour Grace.

Before the war the price paid by importers varied between 40 and 45 shillings ($9.73 and $10.95) per drum c.i.f. Bahia, and is now said to be 48 to 52 shillings (equivalent to $11.68 to $12.65 at the normal rate or $4.8665 per pound.) The price at which cod is now being wholesaled here is about 56 milreis ($13.44) per drum. The qualities preferred are known as "prime dry" and "seconds," the latter selling at 2s. 6d. ($0.61) per drum less than the former.

The Brazilian tariff provides for a duty on codfish of 60 reis per kilo, less an arbitrary tare of 10 per cent in weight deducted when the fish are packed in drums. The actual duty, however, taking into consideration the 2 per cent surtax and the proportion of the duty payable in gold, is equivalent to $0.99 per 100 pounds ((1 milreis=$0.24; 1 kilo=2.2046 pounds.) According to a bill covering a recent importation, 5.3 milreis ($1.27) was paid per drum. This included custom-house broker's fee and all expenses connected with the custom-house.

Hake and pollock are not now known here, but if prepared and packed in the same way as codfish and offered at a competitive price, they might find acceptance in this market.—(United States Commerce Reports.)

THE LENTEN SEASON OF 1916.

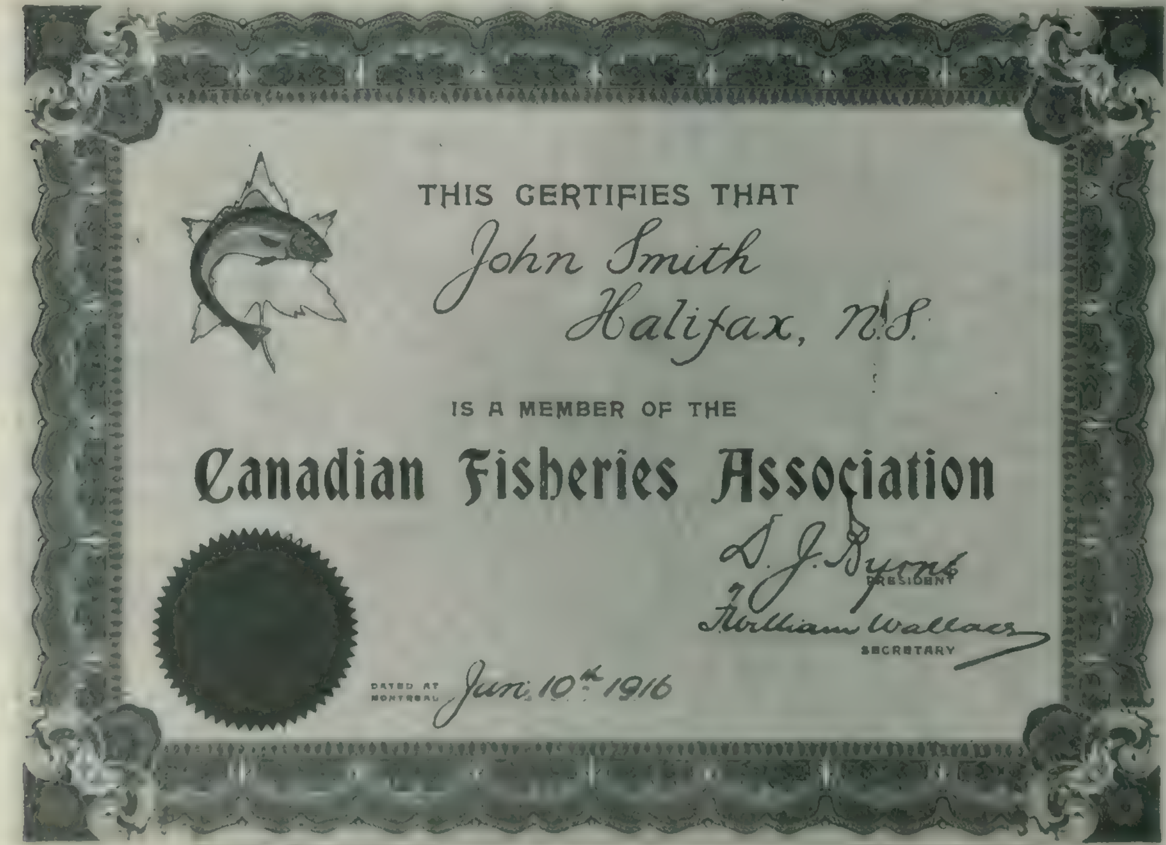
Ash Wednesday, the first day of Lent, falls on March 8.

Easter Sunday, the last day, April 23.

In the interim there are 16 fish days—March 8, 10, 15, 17, 18, 22, 24, 29, 31; April 5, 7, 12, 14, 19, 21, 22.

Referring to intelligence in animals a Canadian is responsible for the statement that wolves "are known to watch the fishermen who set trout-lines through lines in the ice on Lake Superior. A wolf will then make for the spot, seize the stick which is laid across the hole and attached to the line, trot off with it across the ice till the bait is brought to the surface, and then return and devour both bait and fish."

No doubt this is the procedure of the ordinary, rather slow-witted wolf. The really intelligent one, far from eating the bait, licks it into position on the hook, and sets the line again.—"Fishing News."



THIS CERTIFIES THAT

John Smith
Halifax, N.S.

IS A MEMBER OF THE

Canadian Fisheries Association

D. J. Byrne
PRESIDENT

F. William Wallace
SECRETARY

DATED AT MONTREAL Jun. 10th 1916

Photograph of Membership Certificate C. F. A.

YARMOUTH, N.S.

(Special Correspondence.)

As usual during the month of February weather conditions have caused a decline in operations in all branches of the fisheries prosecuted from here. Especially is this true as regards lobsters. The catch, however, has been fair, considering the number of men engaged. The maximum number of men in this industry go into it at the first of the season, but towards the end of January, when they have to face real winter conditions for a few weeks the majority drop out, leave their stations and go back to their homes. In fact the cold, high winds and ice combined, render it impossible to fish in many localities no matter how willing the men may be. But now the men are beginning to return to the islands, and in a few weeks everything will be running in full swing again.

A Boston correspondent of one of the local papers writes of having seen a representative of the Barclay-Clements Company who had with him returns for one crate of lobsters from a shipper in Tiverton, Digby County, that netted him $62.55. This is probably the record for one crate of lobsters this year, and is, of course, the result of perfect packing, as this one crate must have held almost two crates of lobsters in weight, as at no time this year has the price exceeded $35, and generally the price has been $25 and $28.

Stocks of salt fish are getting low. Never before in the history of fishing have the dealers experienced such high values in salt mackerel and herring. There is a shortage in both as the catch on the whole was not up to the average. In New York, which city takes a lot of our salt products, prices are from $3 to $5 per barrel higher on mackerel and from $4 to $7 per barrel higher on herring than they were a year ago. Codfish is 15 to 20 per cent higher and all smoked fish is scarce and high.

The new Yarmouth schooner Yatico has made several trips during the month, landing her fares in Shelburne.

A week or so ago the steamer Hugh D. went down to Shelburne and returned with a cargo of dogfish, in packages, for J. F. Ehrgott. In this connection your correspondent intended to ask Mr. Ehrgott for some information regarding this unusual shipment, but it entirely slipped my mind until I was going through my notes and came across this memo. No doubt there is an interesting paragraph connected with it and I will try to get it for next month.

The fishing fleet have not been in port very much lately — that is in this port. Of course, there have been a few fares landed here, but in many cases Shelburne has got them and in others they have run to Digby.

There has been one fatal accident this month, when a young man named Amero, of West Pubnico, lost his life at Abbott's Harbor by falling from a boat.

The Gloucester Times of January 27, had the following:

News of the death of Captain Albert Hubbard at the Chelsea Marine hospital, has just been learned with regret by many in Gloucester where he was well known, having gone fishing from Gloucester for many years. The body was sent to Tusket, N.S., last week and was accompanied by his brother, John, of Essex, with whom he made his home when ashore. He sailed as skipper out of Gloucester on quite a number of vessels, the following being some of them: Schrs. Georgie Campbell, Susan and Mary, and Fannie E. Prescott. His last voyage was on the Schr. Morning Star, when he was taken sick and was put on the hospital ship Androscoggin, and then transferred to the hospital, where he was getting along finely when he had a number of hemorrhages fro which he died on January 16. He was born in Tusket, N.S., 43 years ago, being one of a large family.

Yarmouth is mourning the death of B. B. Law, its late talented member in the House of Commons. Mr. Law always stood for the best interests of the fisherman, and it is significant that his last speech was one on behalf of the fishermen of Nova Scotia, and of this county in particular. It was as follows:

I have been sorry to notice during the year I have had the privilege of sitting in this House, that when our fishing industry is being discussed, very few members stay in the chamber. I hope, Mr. Speaker, that that fact does not account for the lack of brains shown in some discussions which take place in the House. I am very much interested in the matter which has been brought before the House by the Hon. member for Digby (Mr. Jameson). It would have been well if, when the question of wider markets was before this country in 1911, the Honourable members for Queens and Lunenburg had exerted their influence to help to give the people the benefit of reciprocity.

We are at all times assisting the farmer, doing things for him, which, I have no hesitation in saying are quite right, but very little has been done for the hardy, sturdy fishermen. We have in the County of Yarmouth a large number of fishermen. I have the honor of representing one of the largest constituencies in that line that, I presume, there is in the Province of Nova Scotia. I just happened to-day to have some figures, not for this debate at all, of the imports and exports through the port of Yarmouth during the calendar year of 1915. The total imports into the port of Yarmouth were $744,211, and the exports $2,141,389, which certainly shows that we have the trade balance on the right side as far as Yarmouth and the Western Counties are concerned. Our exports largely consist of fish, and I would like to place on Hansard the following figures:

Exports.

Codfish, fresh, dried, pickled	$570,294
Mackerel, fresh, pickled	157,119
Halibut, fresh	47,416
Herring, pickled, smoked	41,112
Sea fish, other, fresh, preserved	90,671
Lobsters, fresh, canned	705,271
Salmon, fresh	27,053
Codfish, oil	8,525
Tongues and sounds	19,740

Making a grand total of exports of fish and fish products from the port of Yarmouth during the past year of $1,668,111, or one quarter of the total exports of fish from the Province of Nova Scotia. I cannot understand why the present Government, and Hon. members supporting it, are so much afraid of the American market. I am convinced of the fact that if you were to take away the American market from the fishermen of Western Nova Scotia, from seventy-five to ninety per cent of them would have to go out of business. We, who are situated in the western part of Nova Scotia, particularly at the port of Yarmouth, have a daily line of boats in the summer time to Boston which is the best fish market on the North American continent. Our fishermen are able to obtain the highest price for their fish there and if reciprocity had carried in 1911, as, to my mind, it should have, all our fishermen would now be getting better prices to-day than they are getting. A large part of the exports of fish from Yarmouth consist of boneless codfish, and there is a United States duty of three-quarters of a cent a pound on this commodity, which duty is taken out of the pockets of our fishermen.

I am sorry to say that the lot of the fisherman is getting harder year by year. I was sorry to be informed just a few days ago that the price of rope has been advanced to 20 cents a pound, and that the price of gasoline had advanced very largely, and is likely to go still higher. With these prospects in view, I am sure our fishermen cannot expect as large profits in the future as they have had in the past unless something is done for them by the Government. I do not think that the Hon. member for Lunenburg makes any suggestion at all for the amelioration of the lot of the fishermen, unless it might be that indicated in the remark which he made, that it was important to get the fish as quickly as possible from the fishermen to the mouths of the consumers. The best way in which that could be done — and it would satisfy the constituents of my Hon. friend from Digby, as well as my constituents, and, in fact, all of the Western Counties — would be by the Government subsidizing a lone of boats running between Boston and Yarmouth, so that the boats could put in proper cold storage plants. The question was discussed last year at some length, but I am sorry to say that up to the present time nothing has been done in refence to it. It would certainly help the fishermen to a very large degree.

Another way in which the fishermen could be helped would be to give a bonus, or a bounty, in some form to them. There is no line of industry in the world that is fraught was so much danger and hardships as the fishing industry. In my constituency the fishermen carry on a very large industry in live lobsters, as will be seen by the figures which I have given to the House. This industry is carried on between the 15th of September and the 15th of July, and it therefore, takes practically the whole of the winter season.

These fishermen are obliged to go out day after day, exposing themselves to hardships and cold, as well as danger and death. If there is any way in which the Minister of Marine and Fisheries and his Department can alleviate the difficulties and hardships of the fishermen, it would certainly be appreciated by those who are engaged in this industry. I have no fault to find with the motion which has been moved by my Hon. friend from Digby. If anything can be done for the fishermen by submitting this matter to the committee, I shall be heartily in accord with it. I am sorry to say that I am afraid that the Hon. gentleman is commencing at the wrong end of the question. Unless the committee consider the question of free fish into the United States, which is the natural market, and without which market the fish business in the western part of Nova Scotia would be entirely obliterated, I am afraid that we cannot hope for any great results."

Live Lobsters, crates, 4,361; Fresh Fish, cases, 1,241: Fresh Fish, barrels, 11; Smelts, boxes, 624; Dry Salt Fish, drums, 936; Finnan Haddies, boxes, 553; Boneless Fish, boxes, 1,701; Pickled Fish, cases, 328; Canned Lobsters, cases, 400; Periwinkles, barrels, 2; Fresh Halibut, cases, 1; Pickled Herring, barrels, 53; Fish Scraps, barrels, 20; Clams, barrels, 161; Boneless Codfish, boxes, 2,972; Fish Waste, barrels, 93; Salt Codfish, drums, 1,089; Salt Codfish, tubs, 689; Scallops, half barrels, 108; Eels, barrels, 42; Fish Clippings, barrels, 4; Cod Oil, barrels, 81; Haddock, cases, 1; Salt Mackerel, bbls., 8; Salt Haddock, drums, 43; Salt Cod (green), cases, 1; Salt Cod (green), barrels, 25; Hake Sounds, bags, 5; Green Fish, cases, 35.

To Panama: 13 butts, 10 drums codfish; 12 barrels pickled mackerel; 10 barrels salt herrings, 2 barrels pickled alewives.

To Colon: 15 butts, 13 cases codfish; 10 barrels pickled mackerel, 5 barrels pickled salmon; 10 barrels smoked herring.

To Bocas del Toro: 5 butts, 10 cases codfish; 10 barrels salt mackerel.

To Boston (for shipment): 100 drums dry salt fish.

To Rio Janeiro: 1,010 tubs dry salt fish.

To Brazil: 1,792 tubs, 195 drums, 50 casks, 50 boxes dry salt fish; 283 tubs dry salt hake; 67 tubs dry salt haddock.

To Porto Rico; 325 packages, 144 tierces, 100 drums dry codfish; 50 butts large, do.; 300 drums salt fish.

To Ponce: 110 tierces salt fish.

To San Jose: 25 butts salt fish.

To New York (for shipment): 438 boxes "Newfoundland Johnnies."

To San Juan: 100 tierces codfish; 50 tierces, 25 butts, 75 packages large, do.

To Arecibo: 44 tierces, 44 drums codfish.

To Cuba: 29 packages, 1,002 drums, 158 cases dry codfish; 80 cases salt haddock.

To San Domingo: 165 cases codfish.

To Havana: 74 tubs dry salt fish; 510 drums codfish.

FROZEN FISH IN ENGLAND.

England is taking very kindly to frozen fish, and in time there may be a great outlet for the American product. The following is from the pages of our esteemed London contemporary, "The Fish Trades Gazette":

> "Two years ago it was demonstrated that, providing quality was A1 and the freezing all it should be, halibut sent from Canada could be made a success with careful handling. This was in pre-war times; and certainly since the war has caused an abnormal scarcity of fish, the prejudice that existed against frozen fish has been broken down to a very considerable extent, and now I claim that frozen halibut has proved, and is proving, a very useful commodity in the British markets, and if the same course were pursued with haddocks, finnies, fillets, and other species of Canadian fish, it would be acceptable to the British markets. If they were in the first instance dressed, split, etc., on British lines and frozen hard enough to stand what delays might ensue in shipping, and the passage across the Atlantic, I think they would prove a success and would be a very good addition to the food supply of this country."—Fishing Gazette.

HIGH STOCK OF AN ENGLISH TRAWLER.

All records were broken recently by the Grimsby trawler Hortensia, which landed a cargo of Iceland fish that sold for £2,780, or about $13,900. The catch, the outcome of three weeks' fishing, comprised 1,030 boxes of sprags, dabs, cod and plaice. The sum is the largest for a single voyage in the history of steam trawling. The lucky skipper will net considerably more than $1,000 for his share of the catch, while his mate will "rope in" a five hundred dollars. Some trip!

THE PACIFIC FISHFRIES

(Special Correspondence.)

VANCOUVER, B.C.

(Special Correspondence.)

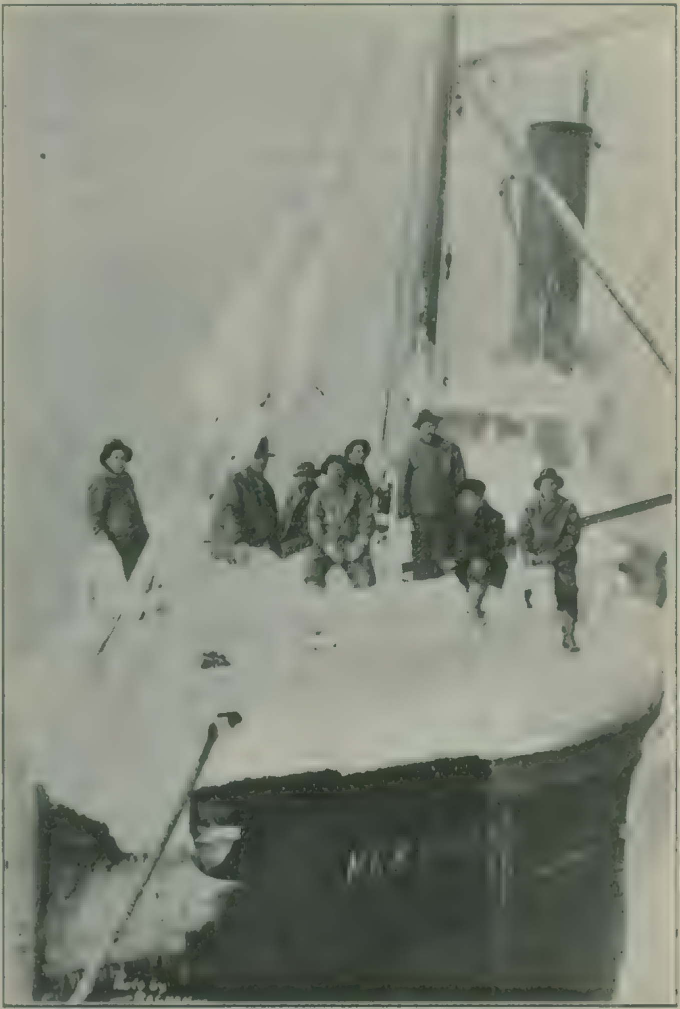
Wild Weather on the Pacific.

Although the halibut fishermen on the Pacific Coast consider that the winter weather which is ordinarily experienced is hard enough to contend with, the winter of 1915-16 has been the most stormy one which has been known in the history of the industry thus far. Without exception every one of the steamers and schooners report below zero weather, and terrific gales, and it is fortunate indeed that the losses have not been greater than so far reported.

The steamer "New England," belonging to the New England Fish Company of Vancouver, left the fishing grounds, about 120 miles west of Yakutat, Alaska, on January 18th, en route for home. She immediately encountered very heavy winds, and attempted to make for the harbour of Yakutat, but was unable to do so. The spray breaking over the vessel froze wherever it touched, with the result that before very long the ship was covered from stem to stern with a heavy layer of ice, which kept the entire crew, as well as the fishermen, hard at work cutting the ice away and keeping the vessel clear, as the ice accumulated. At one time there was so much ice on the deck, and the seas were breaking over her so fast, that the crew believed she would turn turtle and sink. However, the extraordinary efforts put forth by the Captain and crew got the vessel out of danger, but in the meantime all loose fishing gear and everything that was moveable on the deck was thrown overboard in the endeavor to lighten the vessel and enable her to continue. Seven of the crew had their hands and faces badly frozen during the work of clearing the vessel. Three men were lifted off the deck by a wave, but were able to catch hold of the rigging and saved themselves from being washed overboard. The trip from the fishing grounds to Vancouver is ordinarily made in five days, but the extraordinary weather lengthened the trip to nine days.

The steamer "Manhattan," belonging to the same company, arrived a couple of days after the "New England," and reported as severe weather as the "New England" went through, but owing to being to make the Inside Passage, she had a much better trip.

The steamer "James Carruthers," of Prince Rupert, also had a very bad time of it. The "Carruthers" was fishing with the "Manhattan" and "New England," but not finding the fishing good enough, the Captain decided to go to the westward. The terrific weather, however, compelled him to turn round and make for home. He had already been out some time, but the head winds prevented him from either making Yakutat Harbor or getting home, and the constant accumulation of ice from the sea spray covered the vessel over to a very considerable extent. The additional weight on deck from the ice was so great that everything was jettisoned, including two dories. The "James Carruthers" had only been outfitted for sixteen days, and when she reached Cross Sound after being away from home twenty-three days, she was entirely out of food, and her coal supply gave out. In Cross Sound she met the SS. "Andrew Kelly," belonging to the same owners, and this steamer supplied her with sufficient coal and food to take her home, the "Andrew Kelly" going to Juneau to replenish her coal and provisions, and to advise the owners that the "James Carruthers" was safe and on her way home. During the severe weather experienced



SS. "New England," Iced up at Vancouver.

by the "Carruthers" two men were thrown on the deck by heavy seas and badly injured. These men are still in Prince Rupert Hospital, and the recovery of one of them is doubtful.

The schooners "Liberty" and "Republic" went through the same storm as the steamers mentioned above. They were heavily iced and were only able to keep clear of ice and get back to port with the greatest difficulty.

It is believed that one of the steamers caught in this storm will never be heard from again. The SS. "Onward Ho," belonging to the B. C. Packers' Association, of Steveston, B.C., left Vancouver for the Alaskan fishing grounds on January 6, after taking on fuel oil and supplies. She was last seen, so far as can be ascertained, on January 16th, when she was sighted by the SS. "New England," and reported that she had 180,000 lbs. of halibut, and was starting for home immediately. There seems to be no doubt that the "Onward Ho" ran into the same storm that so nearly caused the loss of some of the other steamers, an dthat she was unable to weather it. It is now over one month since she was heard from, and although there is a possibility that she may have become disabled and drifted south-west into a warmer belt, and that she will ultimately be picked up, somewhere in the North Pacific, there does not appear to be much likelihood that this is the case. Her crew consisted of 12 men and 24 fishermen, nine of whom were married men with families.

NOTES.

The steamer "San Juan," of the Seattle fleet, called at Prince Rupert on January 15th for the first time, and landed 2,000 lbs. of fish. She took a supply of bait at Prince Rupert on account of being unable to get any bait in Alaska.

The launch "Pirate" brought 250 barrels of herring to Ketchikan, Alaska, on January 17th, all of which was used up immediately for baiting halibut schooners. The run of bait herring in Alaska so far has been a failure, and the same may be said of conditions at Prince Rupert. Hitherto the Ketchikan and Prince Rupert cold storage plants have obtained more than a full supply of herring for baiting purposes for the ensuing season, before the end of January, but this season none of the cold storage houses have as yet put away any frozen herring for bait. While there is every belief that the herring will run before the end of February, it is expected that if they do come in they will be either spawned out or so nearly matured that the season will of necessity be very short. Formerly, the herring men have waited for the herring to come in to the bays and harbors, but this year they have gone out to search for them, but have been unsuccessful.

The Halibut Fishermen's Union of the Pacific has hitherto included in its membership only those fishermen who earned their livelihood by fishing for halibut. The men fishing for herring, cod and other fish, either locally or in the Behring Sea, have had no properly constituted Union. The Halibut Fishermen's Union now announces that consequent upon the inclusion of the herring and cod fishermen, the name of the Union has been changed to The Deep Sea Fishermen's Union of the Pacific, and that the Union now includes all fishermen from Seattle North, whose work takes them into deep sea waters.

Mr. W. P. Hinton, General Manager of the Grand Trunk Pacific Railway Company, and Mr. G. A. McNicholl, of the same company, spent a few days in Vancouver, returning east over the C. P. R.

Mr. H. C. Nunan, manager of the Atlin Fisheries, Limited, of Prince Rupert, is at present in Vancouver, arranging the plans for the new fish house for his company at Prince Rupert.

The death is reported of Elmer Lewis, formerly a fishermen on the schooner "Pescawha." Lewis was accidentally shot in the spine in January, 1915, with the result that the lower half of his body was paralyzed. He was brought to Vancouver and placed in the hospital, where he was given every care and attention, but in spite of everything that could be done for him, he passed away on February 8th, 1915, after thirteen months' illness. Lewis was taken care of during his long illness by the Halibut Fishermen's Union, by whose members he was well looked after. Lewis was a native of Freeport, N. S.

Capt. A. Freeman, the oldest and best-known halibut fisherman on the Pacific Coast, has at last given up his steamer, the "Flamingo," to take command of the SS. "Kingsway," belonging to The Canadian Fishing Company, Limited. Captain Freeman has been in command of the SS. "Flamingo" for the past nine years, during which time he has brought in some of the biggest catches of halibut ever landed on the Pacific Coast. Capt. Freeman is suceeded on the "Flamingo" by Captain S. Salveson.

Amongst the mishaps reported to the halibut fishing fleet, since the beginning of February, are the following:

The schooner "Tuladi" lost her propeller at Skidegate Inlet, Queen Charlotte Islands, and was towed to Prince Rupert for repairs;

The schooner "Alliance No. 1," went on the rocks at Cushewa Inlet, and was towed to Prince Rupert for repairs;

The fishing schooner "Edson" went on the rocks at Coronation Island, and became a total wreck.

The fish fertilizer plant, and cold storage plant on Queen Charlotte Islands, at Skidegate Inlet, has been sold for the sum of $29,500, to the Otis Company of Cleveland, Ohio. Mr. Coons, a resident of Victoria, was instrumental in putting the deal through. This plant originally cost $300,000, but always operated at a loss owing to the inaccessible place in which it was located. This sale winds up the assets of the Standard Fisheries, Limited.

The Liquidator of the ill-fated B. C. Fisheries, Limited, announces to the Press that he wil shortly offer for sale the entire assets of that company, by Order of the Supreme Court of British Columbia. The assets consist of a cannery, saltery and ice house, fish fertilizer plant, oil refinery, and miscellaneous fixed and moveable property, all at Aliford Bay, Queen Charlotte Islands, as well as three steam trawlers, and one steam tug at Vancouver. He is now calling for tenders for all or part of this property, which represents an investment of over one and one-half million dollars. What the plant will realize, of course, cannot be said at this time, but it is not expected that twenty cents on the dollar will be realized by the Liquidator.

Capt. George Selig, formerly of the schooner "Chief Skugaid," is to take command of the schooner "Carlotta G. Cox," belonging to the Atlin Fisheries, Limited. Capt. Selig is well known as a successful fisherman.

Mr. Harry Sheere, who has been manager for several years past of the Skeena River Fisheries, Limited, at Haysport, B.C., has accepted a position with the Department of Marine and Fisheries, under Capt. Saunders, at Digby Island, near Prince Rupert, B.C.

Mr. G. W. Nickerson, of the firm of G. W. Nickerson and Company, Prince Rupert, who is interested in the fishing industry there, has just been elected President of the Prince Rupert Board of Trade. Mr. Nickerson is very popular in the Northern City, and it is rumored that he is shortly to join the ranks of the benedicts.

BUTTONS FROM ARTIFICIALLY GROWN MUSSELS.

An interesting test has been made in connection with the experiment in the rearing of fresh-water mussels at the Fairport laboratory of the United States Bureau of Fisheries. It was found possible to cut and finish buttons of two lines thickness from shells of mussels less than 18 months of age, counting from the date of infection. The mussels were "Lake Pepin muckets," a form of Lampsilis luteola which is not indigenous to the Fairport region. The glochidia had been obtained from gravid mussels taken in Lake Pepin, had been infected on the gills of fish at the Fairport laboratory, and subsequently reared under conditions of control.

Although the shells are not yet of sufficient size and thickness to be used commercially, the rate of growth has been much more rapid than was expected before the experiments were undertaken. Some of the mussels were reared in floating baskets in the river and others in one of the station ponds; the mussels of the latter lot were older, counting from the date of infection, as the infection had been made in the fall of 1913. Practically two seasons of free growth had elapsed in each instance.

BIG SHORTAGE IN RED SALMON PACK.

The available stocks of Red Alaska salmon are reported as not exceeding 350,000 cases in first hands, according to Portland, Ore., advices. The natural result of the shortage has been to advance prices 5c. a dozen. Unofficial estimates of the total pack of Red salmon, including sockeyes, give the volume of red 1914 at 1,950,000 cases, compared with 3,840,000 cases in 1914. The total salmon pack, including all grades for 1915, is given on unofficial estimates as 6,650,000 cases. Sales for domestic and export account in red and medium red grades are said to have been on an exceptionally large scale in spite of the unusually high basis of values fixed by the canners. Figures compiled by government officials show the shipments of salmon for the year ending Sept. 30th last to have been 7,500,000 cases. No figures are available showing the percentage exported, but it is known to have been far in excess of any season in the history of the salmon canning industry.

PRINCE RUPERT NOTES.

(Special Correspondence).)

January, an off month, as far as Pacific Coast halibut fishing is concerned, has shown a marked increase over previous years. A total of 1,275,900 lbs of Halibut being landed during January. Bad weather and the fact that most of the boats tie up at the Xmas season for overhauling &c, always tend to have an effect on the receipts for the first month in the year.

Cod was received to the extent of 11,700 lbs, and a small quantity of Salmon and other fish. The total value was $64,490.

Extremely rough weather has been reported by returning fishing boats, several having had difficulty in making port, owing to the severity of the weather. One boat the "ONWARD HO" is still overdue, and anxiety is felt for her safety.

A point worth noting concerning the marketing of halibut is that Prince Rupert has been making several shipments of Halibut to the Southern ports on the Coast at different times.

The Canadian Fish and Cold Storage Co. report good business for the month. The expected run of Herring has not yet appeared and considerable anxiety is felt as to whether they will come in this season or not. They are said to be running over at the Queen Charlotte Islands 60 miles out at sea, but owing to the fact that herring in quantity invariably come in to the harbour at Prince Rupert at this time of the year, fishermen hesitate going so far for them.

The fishing district at Seal Cove at the upper end of Prince Rupert, where owing to the location of the Canadian Fish and Cold Storage plant and the excellent anchorage for small boats, a considerable population has located, had its first fire recently. A store owned by Mr. Smith being burnt. It was a total loss and Mr. Smith himself had a narrow escape.

The San Juan Fishing Co. are erecting a building for storage purposes on the G. T. P. Dock, and there is general preparation for the coming season, which in the opinion of all will be the best yet for Prince Rupert.

Not content with having secured the greater part of the fish hauling business from the Northern Pacific. The G. T. Ry and Steamship Company are making a bid for the Alaska cannery supply trade. They are inaugurating a steamship service the coming season and have already named a rate on tin plate of $1.50 per ton lower to Alaska cannery centres than that quoted via Seattle. It is expected that the movement of tin plate &c over the G. T. P. Ry. to Alaska canneries will influence the return of salmon to eastern markets through this port.

Fishermen are awaiting with considerable interest, the findings of the Advisory Board now in session at Ottawa, regarding the concessions asked for as to the Salmon fishing &c, which if favorable will do much towards making conditions better for the men engaged in the catching of salmon for the canneries.

The Prince Rupert Exhibition will be held in September next, and preparations are being made to get an exhibition of fish together, which will demonstrate the importance and variety of Prince Rupert's fishing industry, including the value of the food fishes of Northern British Columbia.

Report on Sample Shipment of Canadian Fish forwarded to Great Britain by the Canadian Fisheries Association and the Department of Marine and Fisheries of Canada

With a view to obtaining some indications of the possibilities with regard to the importation into this country of fish from Canada, the Board of Agriculture and Fisheries recently entered into communication through the Colonial Office, with the Canadian Government. Copies of a memorandum on this subject prepared by the Department of the Naval Service of Canada, were recently furnished to the fishing industry and press.

Subsequently the Government of Canada were good enough to forward a consignment of samples of those fish which they considered most likely to find a market in this country. This consignment consisting of cod, haddock, pollock, whitefish, mackerel, herring, flounders and witches, all frozen fish, together with frozen smoked haddocks, fillets, bloaters and kippers, arrived in Liverpool by the SS. "Corsican" on 9th November, and was immediately placed in cold storage pending distribution. Frozen salmon and halibut were not included owing, no doubt, to the fact that trade in these commodities is already fairly well established between the two countries, and fish merchants have already had opportunities of judging of the possibilities afforded by it.

The amount of fish of each sort being necessarily small, it was not possible to distribute representative samples to all the fish markets of the United Kingdom, but after consultation with Mr. Thomas Robinson, of Grimsby, who very kindly undertook all the arrangements for distribution, samples of the fish were sent to Fish Merchants or Salesmen in the following towns:—London (Billingsgate), Glasgow, Birmingham, Sheffield, Leeds, Bradford, Halifax, Nottingham, Leicester, Huddersfield, Plymouth, Hanley and Southsea. Arrangements were made for the samples in each case to be on exhibition for several hours in the morning, attention being drawn to the fish and to its origin and the purposes for which it was sent by a bill in prominent type. Subsequently the fish were sold by public auction. Owing to the small quantities available, which precluded the possibility of dealing with the fish on strictly commercial lines, no definite conclusion can be drawn from the prices realized in the markets. The Board, have, however, received through Mr. Robinson reports from the salesmen who handled the fish, and it is thought that a summary of the general effect of these reports may be of interest to the fish trade.

In general one may say that the opinion expressed was, as regards quality favourable to fresh haddock, witches and smoked fish generally. In all cases, however, the complaint was made that sufficient care had not been taken in splitting or filleting the smoked fish, and generally in packing and freezing.

As some indication of the variation of the reports received, from different centres, the following may be mentioned: Haddocks (fresh frozen) favourable at Grimsby, Huddersfield, Halifax, Leicester and Southsea.

Witches, favourable at Leicester, London, Grimsby, Glasgow and Southsea. At Halifax they were reported to be of no use to the market.

Mackerel favourable at Huddersfield and Leicester. Reported not good at London and Glasgow.

Pollock, whitefish, herring and flounders, generally met with an unfavourable reception.

Headed cod and sprags met with a favourable report in two or three cases.

Smoked haddock favourable at Glasgow, Huddersfield. Southsea, and Leicester. Reported no good at London. Smoked fillets favourable at Glasgow, Huddersfield and London, reported no good at Southsea. Kippers favourable at Glasgow, London and Huddersfield. It was reported from Nottingham and Bradford as regards the sample of the fish sent to those markets that subject to improvements in preparing, packing and freezing, a market could be found if the prices were reasonable.

With regard to the complaints made of indifferent preparation and careless packing and freezing it would appear that remedies could be provided without much difficulty. Great improvements in splitting would probably follow from the employment of splitters used to handling fish for the British market. The matter of packing and freezing which require a minimum of skill should be easily dealt with by the exercise of greater care and supervision. Generally as regards smoked fish it might be worth while to draw the attention of the curers to the general requirements of the British market, and of the particular requirements of individual British markets.

In case any fish buyers and merchants should wish to enter into business relations with Canadian Fish Exporters, the Board of Agriculture and Fisheries have had copied from the Export Directory of Canada, published by the Canadian Government, lists of firms exporting various categories of fish. They will be glad to forward copies of these lists on application being made to the Secretary, Board of Agriculture and Fisheries, 43 Parliament Street, London, S.W.

Further information can be obtained from the Secretary of the Department of Trade and Commerce, Canada, 73 Basinghall Street, E.C.

Remarks and Sales Accounts of Distributers

Letter received from THOMAS ANDERSON, Fish Salesman, Glasgow.

November 25th, 1915.

Mr. Robinson.

Dear Sir,—Re the sample of Canadian fish which you sent me; it is quite impossible to do anything with them, excepting the finnons, which are of very inferior quality and would only be suitable for a very cheap order. May I suggest if there should be any future lots coming over here that the packers be instructed to have the fish guilled and the blood cleaned from the bone. As an example the plaice sent would have been quite good for shipping orders if they had been properly cleaned before packing. It would be quite impossible to thaw them down and refreeze them, the same can be applied to haddocks, cod, etc.

I am sorry the parcel should have turned out so unsatisfactory. If you wish to have them returned or sent to any address they are lying in our cold store.

Re Halibut I am sorry it is impossible to take any from your next consignment as the Government have placed large quantities of beef, etc., in our stores; so there is no available space.

I will advise you when I require again.

Yours truly,
(Signed) THOS. ANDERSON.
JOHN ARMOUR.

Letter received from MR. JAMES ALEXANDER, Fish Salesman, Glasgow.

November 19, 1915.

Mr. Thos. Robinson, Fish Docks, Grimsby.

Dear Sir,—I have your sample box of various kinds of fresh fish to-day. Enclosed you have sale note for same along with P. O. value 9s 4d. I examined Bookless Bros. cured, and think there might be a market for smoked haddocks, same as sample, 14 lbs. in each box. Fillets also do well in same size boxes. Afraid kipper herring no use as herrings can't stand to be frozen.

As regards the other class of fresh fish you sent me, they would do better if in boxes say 1 cwt. each, for each kind of fish. After putting up your bill to-day, all the fish mongers here examined your fish, and were at the sale and bidding, but the quantities were so small, it did not give a fair chance of knowing what they might realize if they were in boxes of ½ cwt. or 1 cwt. each. Shall be pleased to hear from you if you are sending further supplies, when I shall do my very best with them.

Yours faithfully,
(Signed) JAMES ALEXANDER.

JAMES ALEXANDER, Fish Salesman, Glasgow.

November 19, 1915.

Sold on account of:—Mr. T. Robinson.

		s.	d.	s.	d.
14 lbs. Haddocks	@		2½	2	11
16 lbs. Cod	@		2	2	8
10 lbs. Saithe	@		1½	1	3
19 lbs. Flat fish	@		3	4	9
3 Mackerel				1	6
11 Herrings				3	1
				16	2
Carriage		6	0		
Commission			10	6	10
Nett proceeds				9	4

Letter received from Messrs. Cooper and Co., 8 to 38 Howard street, Glasgow.

November 22nd, 1915.

Mr. Thos. Robinson, Fish Docks, Grimsby.

Dear Sir,—Sample of frozen fish to hand, and examined; unfortunately our buyer was unable to see the sample you sent to market as they were sold early.

Kippers and finnans were quite satisfactory, ,and we think would meet a ready sale for the next three or four months. Witches would fill a much felt want, as the only fault we found was that they lost more in dressing than the home fish. Herring, mackerel and fillets were not so satisfactory, especially the fillets which we had a difficulty in getting rid of; at the same time we fully believe that the three latter fish would meet with a good sale in a cheaper district, but personally would not have them again.

If you have any codling or haddocks left we would like to sample them also.

We enclose copy of invoice which we trust will be found to your satisfaction.

Yours faithfully,
COOPER & CO.

COOPER & CO., 8 to 38 Howard street, Glasgow.

November 22nd, 1915.

Sold on account of:—Mr. Thos. Robinson.

	£	s	d
1 stone Fillets		3	0
48 lbs. Witches	1	4	0
1 stone Finnans		7	0
1 box Kippers		4	0
16 Mackerel		1	6
46 Herrings		3	6
	£2	3	0
Less carriage		7	6
Net proceeds	£1	15	6

Letter Received from J. FLETCHER & SONS, Fish Salesmen, Bradford.

November 23rd, 1915.

Dear Sir,—We received the samples of Canadian fish, it did not take well here, it was in a very rough state. If it could be frozen in better condition we think it would sell all right. The fillets would do with a bit more color for this market.

Yours faithfully, ,
(Signed) J. FLETCHER & SONS.

J. FLETCHER & SONS, Fish Salesmen, Bradford.

November 23rd, 1915.

Sold on account of:—Mr. Thomas Robinson.

		d		s	d
3 lbs. Codlings	@	3		0	9
8 lbs. Trout	@	4		2	8
7 lbs. Herrings	@	1½			10½
7 lbs. Witches	@	4		2	4
9 lbs. Sole		..		1	0
14 lbs. Hadd	@	3		3	6
7 lbs. Mackerel	@	3		1	9
1 box Kipper		..		5	0
7 lbs. Cod	@	3		1	9
16 lbs. Finneys	@	3		4	0
1 box Fillets		..		3	6
14 lbs. Flounders	@	3		3	6
			£1	19	7½
Carriage				4	2
Nett proceeds			£1	6	5½

Letter received from Messrs. BOOKLESS BROTHERS, 29 East Clyde Street, Glasgow.

November 19th, 1915.

Mr. T. Robinson, Grimsby.

Dear Sir,—Consignment of Canadian Fish to Hand. Chicken haddies. We think there would be some opening for this class of stuff, as high smoked fish, exceedingly scarce on this market meantime. Of course, only under present circumstances. Smoked fillets. This article needs a little more color, and would sell fairly well, on a scarce market if reasonable.

Kippers. This article would only do on short markets, as buyers prefer home kippers.

We wired you on Wednesday to send two cases of halibut, up to time of writing, we have received same. We did not receive the last case we ordered, until the Monday we ordered same on the previous Thursday. We trust you will look into the matter, as we expect to receive same at least two days after ordering.

We remain, yours faithfully,
(Signed) BOOKLESS BROS.

BOOKLESS BROTHERS, Fish Salesmen, Glasgow.
Glasgow, Nov. 20th, 1915.

Sold on account of:—Mr. T. Robinson.

				s	d
1 Hadds				8	6
1 Fillets				6	0
1 Kippers				6	6
			£1	1	0
	s	d		s	d
Commission	1	1			
Carriage	4	6		5	7
Nett proceeds				15	5

Letter received from Messrs. BOOKLESS BROTHERS,, Wholesale Market, Leeds.
November 19th, 1915.

Dear Mr. Robinson; re Canadian Fish.

I hope the enclosed sales will be satisfactory. It is difficult at this stage to make comments upon the quality because everything depends upon how the fish uses and those customers who have bought will be the judges, so should you not hear to the contrary you may take it for granted the fish has used well.

I think you might send me some dry for Mondays trade.

Yours truly,
(Signed) J. H. ROGERS.

BOOKLESS BROTHERS, Kirkgate Market, Leeds.
November 19th, 1915.

Sold on account of:—Mr. T. Robinson.

				s	d
1 box Kippers				8	0
3 Fish				1	0
1 stone Colefish				3	0
1 stone Hadds				5	0
1 stone Plaice, etc. (poor sample)				4	0
1 Finnons (rough)				4	6
1 Fillets				5	6
1 doz. Herrings and Mackerel				2	3
			£1	13	3
Carriage	3	4			
Commission	1	11		5	3
Nett proceeds			£1	8	0

Letter received from ALLAN WINN, 20-21 Market Hall, Huddersfield.
Nocember 19th, 1915.

Re sample of Canadian fish received to-day. We can work the mackerel, ,haddocks, finney, fillets and kippers all right if the price is reasonable. Kindly say what price these are intended to be put on the market.

Will write you to-morrow as to the result of the samples received.

Yours sincerely,
(Signed) A. WINN.

ALLAN WINN, Fish Salesman, Huddersfield.
November 23rd, 1915.

Sold on account of:—Mr. Thos. Robinson.

		s	d
2 lbs Codling		0	6
7 lbs. Trout		2	0
7 lbs. Herrings		1	0
7 lbs. Witches		2	0
11 lbs. Cole		1	6
15 lbs. Haddocks		4	0
3 Mackerel		1	6
1 box Kippers		5	0
1 box Fillets		6	0
14 lbs. Finneys		4	0
	£1	7	6
Less carriage		1	10
Nett proceeds	£1	[illegible]	8

Letter received from J. H. JAGGER, Fish Salesman, Halifax.
November 20th, 1915.

Mr. Thos. Robinson, Grimsby.

Dear Sir,—Witches and salmon trout don't sell in this market when fresh, therefore, no use here when frozen. The haddocks were all right, but ought to be sent headless. Spragg does not sell very well, but should be sent headless. Finney to weigh 1 lb. each, would make a much better price than large. The smoked fillets would have looked better if an expert had filleted the fish. It was very rough about the edges. These should have been cut off before being smoked.

The mackerel, herrings and reds looked very well.

Yours respt.,
(Signed) J. H. JAGGER,

P.S.—Have you any haddocks on hand? If so, please say if headless and price.

J. H. JAGGER, Wholesale Fish Market, Halifax.
Halifax, Nov. 19th, 1915.

Sold on account of:—Mr. T. Robinson.

		s	d
2 lbs. Codlings		0	6
3 lbs. Trout		1	0
14 Herrings		1	6
11 Whitches		3	8
14 Haddocks		4	1
14 Mackerel		2	4
1 box Bloaters		4	2
1 box Finneys		4	0
1 box Fillets		4	8
	£1	5	11

Letter received from Messrs. GEORGE ROBINSON & SONS, Fish Salesmen, Nottingham.

Mr. Thos. Robinson.

Dear Sir,—Please find enclosed sale account and cheque for he consignment of Canadian fish, which we trust will be satisfactory.

We may say there would be a market for this fish if we could obtain it at a reasonable price. Also, there could be great improvement in the packing and freezing of the fish; as much attention should be paid to this as to the Columbia halibuts. The kippers also would no doubt sell, but would have to be split and cured in a much superior way. If there is anything further done in the matter we shall be pleased to hear from you.

Yours faithfully,
(Signed). GEORGE ROBINSON & SONS.

GEORGE ROBINSON & SONS, Wholesale Fish Market, Nottingham.
November 24th, 1915.

Sold on a|c of:—Mr. Thos. Robinson.

				s	d
2 boxes Finnon Haddock				13	0
16 lbs. Finnon Haddock				6	10
9 lbs. Spraggs				3	0
9* lbs. Colefish				2	6
7½ lbs. Sand Dabs				2	0
7½ lbs. Witches				2	6
13½ lbs. Fresh Haddock				4	6
16 lbs. Cod				6	4
3 Mackerel				1	0
2 Bream				1	3
1 box Fillets				7	6
34 Herrings				3	9
1 box Kippers				5	0
			£2	19	2
	s	d		s	d
Carriage	4	0			
Cartage		5			
Commission	3	0		7	5
Nett proceeds			£2	11	9

Letters received from J. C. BRINDLEY, 28 Bell street, Nottingham.

To Mr. T. Robinson, Grimsby.

Dear Sir,—Re the consignment of frozen fish received from you to-day below are the prices made, if prices satisfactory please send early Monday for Tuesday's morning early sale good supply of all kinds as Tuesday is far the best market day in the week possible.

I may improve on these prices, rest assured I shall do my very utmost to realize the best prices possible.

Trusting you will send good supply of all kinds certain on Monday.

I remain, yours faithfully,

(Signed). J. C. BRINDLEY.

J. C. BRINDLEY, Fish Salesman, 28 Bell Street, Birmingham.
Birmingham, Nov. 19, 1915.

Sold on account of:—Mr. T. Robinson.

	s	d		s	d
26 lbs. Haddocks				8	8
24 lbs. Fillets..				4	8
18 Herrings				3	0
18 Small Mackerel..				4	6
12 Large Mackerel				6	0
38 lbs. Witches				12	8
18 lbs. Mixed..				3	9
				s	d
			£2	3	3
	s	d		s	d
Carriage	40	9			
Commission..	20	1			
Market dues..		9		7	7
Nett proceeds			£1	15	8

Letter received from Messrs. WILLIAM WARNER'S SONS and Co., Fish Salesmen, Leicester.
November 23rd, 1915.

Mr. Thomas Robinson, Fish Merchant, Grimsby.

Dear Sir,—Canadian Government Fish. We shall be pleased to have further supplies of the following kinds for sale here, and think there is reasonable prospect of our making satisfactory returns:

Large Mackerel	Whitches	Fresh Haddocks
Herrings	Finnons.	

Canadian Halibut. We are open for supplies of best quality, medium sized new fish, and shall be pleased to have your lowest prices. You might bear in mind in quoting that trade is purely wholesale.

Awaiting your esteemed reply.

Yours faithfully,

(Signed). WILLIAM WARNER'S SONS & CO.

We think the box of fillets we received must have been a bad sample, as its appearance had been completely spoiled by rough handling and cutting.

W. E. W.

WILLIAM WARNER'S SONS & CO., Fish Salesmen, Leicester, November 22nd, 1915.

Sold on account of:—Thomas Robinson.

		s	d	£	s	d
2 Mackerel (large)..					1	6
4 Mackerel (med.)					1	0
1 stone Whitches..					6	0
11 lbs. Sand Dabs	@ 4				3	2
1.5 F. Hak and Sprag ..	@ 4				8	11
21 Herrings					1	9
21 lbs. Finneys	@ 4		8		10	0
1 box Fillets (rough)..					2	0
1 box Bloaters..					....	
1 Chub. No sale.					....	
				£1	9	4
		s	d		s	d
Carriage		6	8			
Cartage..		1	0			
Commission..		1	6			
Cheque..			1		9	3
Nett proceeds				£1	0	1

Letter received from Messrs. W. & A. SHAW, Fish Merchants, Piccadilly, Hanley.

November 17th, 1915.

To Mr. T. Robinson, Grimsby.

Dear Sir,—Regret prices for frozen fish too much. The most I could give is 4d for the whitches and 2½d for haddocks. These are the prices we have always paid ex Liverpool.

The reason they do not compete fresh fish is that the whitches do not fry at all nicely and spoil all the fat used, and the haddocks have just to be sold before being thawed quite out or they are very dry. They will not suit curers I am afraid. Say on wire what to do with those sent.

(Signed). W. SHAW.

W. SHAW, Fish Salesman, Piccadilly, Hanley.
Nov. 19th, 1915.

Sold on account of:—Mr. T. Robinson.

	s	d
2 lbs. Codlings	0	5
7 lbs. Trout	1	0
14 Herrings	2	0
14 lbs. Whitches	4	0
8 lbs. Cole	2	0
14 Haddocks	2	11
14 Mackerel	2	0
1 box Kippers	8	0
1 box Finneys	4	8
1 box Fillets	6	0
14 lbs. Flounders	4	0
	£1 17	0

Letter received from Messrs. GRANT & MAY, 5 Billingsgate, London.

November 19th, 1915.

Mr. T. Robinson, Grimsby.

Re Samples of Fish ex Canada.

Dear Sir,—We received above 7.00 this morning and had same on view until 9.30 when we sold as per sale enclosed.

The flat fish such as dabs and whitches will sell when our own fish is scarce and which it is likely to be this winter we think. Fillets, National Brand, are better than the other brands, the former being light and the latter dark in color. We also think there would be a trade for the kippers.

As regards the herrings, mackerel and cod and smoked haddock we do not think they will sell very well.

Should you have any more fish in Cold Storage at Liverpool and you are satisfied with the prices we have made we shall be glad if you will send further consignment, which shall have our best attention.

Yours truly,

(Signed). GRANT & MAY.

GRANT & MAY, Fish Salesmen, Billingsgate, London, E.C.
November 19th, 1915.

Sold on account of:—Mr. T. Robinson.

	s	d	£	s	d
1 box National Brand Fillets				6	4
1 box Sweet Briar Brand Fillets.. ..				4	0
1 box Kippers				5	0
4 Dabs .. ..)					
1 Colefish .. ..)					
2 Cod .. ..)					
6 Mackerel .. ..)					
2 Bass .. ..)			£1	1	0
2 Whitches .. ..)					
5 Smoked Haddocks .. ..)					
6 Fresh Haddocks .. ..)					
6 Herrings ....)					
			£1	16	0
	s	d			
Expenses		6			
Commission	1	10		2	4
			£1	13	8

Letter received from W. H. HOOPER & SONS.
32 Great Southsea street, Southsea.

Mr. Thos. Robinson, Fish Docks, Grimsby.

Dear Sirs,—We beg to enclose cheque value £1, being the net realization of your consignment of frozen fish received on Saturday last.

Yours faithfully,
(Signed). W. H. HOOPER & SONS.

Letter received from W. H. HOOPER & SONS,
32 Great Southsea street, Southsea.

November 23rd, 1915.

Mr. Thos. Robinson, Fish Docks, Grimsby.

Dear Sir,—We duly received your frozen fish. We do not think same would sell to any great quantity here with the exception perhaps of whitches and fresh haddocks. The mackerel and fresh herrings do not freeze well. We might mention that we have had fresh haddocks frozen for some time from another source, and they are very much better quality fish than the small sample we received from you. Smoked fillets are a failure to our mind, but smoked haddocks might be worked in considerable quantities. Please do not think that we are decrying the goods in any way. We only mention this as our experience, but we would prefer you to place a price on them, also for the goods that we have received. You might rail us by passenger train on Friday a further 5 boxes of the smoked haddocks, and a further 5 boxes on Saturday, both by passenger train.
Thanking you, we remain,

Yours faithfully,
(Signed). W. H. HOOPER & SONS.

Copy of letter from WILLIAMSON & CO., The Esplanade, Aberdeen.

Mr. Thomas Robinson, Fish Salesman & Commission Agent, Grimsby.

Dear Sir,—

We have your letter of the 26th inst.

While we did not consider these FINNANS quite suitable for our Export Trade, we did not suggest that they might not make a fair substitute for use in the home markets. We tasted the fish and while the flavor was certainly not nice, there is no fault to be found with them otherwise. We should have thought that where these were cured they should have been able to handle them fresh or live from the sea; if so, the wings should have been clear. We are sorry that they did not come up to our requirements, for we anticipate having difficulty in getting supplies at home this winter and we might have gone through some quantity had the Canadian been suitable.

We thank you for having submitted us samples. Perhaps when your next lot comes to hand you will let us have a sample again, and if there is any improvement we may then be able to do something.

Yours faithfully,
p.p. WILLIAMSON & CO.
JAMES J. WILLIAMSON.

BOOKLESS BROTHERS, Wholesale Market, Sheffield.

November 24th, 1915.

Sold on account of:—Mr. Thos. Robinson.

	s	d	£	s	d
Lot of Frozen Fish			1	5	6
Carriage and Cartage	3	6			
Commission	1	6			
Telegrams and Toll		6		5	6
Nett proceeds			£1	0	0

TABLE SHOWING DISTRIBUTING CENTERS AND PRICES OBTAINED FOR CANADIAN FISH SAMPLES, NOVEMBER, 1915

	Glasgow	Glasgow	Leeds	Leeds	Bradford	Huddersfield	Halifax	Nottingham	Birmingham	Leicester	Grimsby	Hanley
	Alexander	Cooper	Bookless	Bookless	Fletcher	A. Winn	Jagger.	G. Robinson	Brindley	Warner	T. Robinson	W. Shaw
FRESH FROZEN:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Whitefish				1 7½ stone	4 8 stone	4 0 stone	4 8 stone	2 6 stone			3 6 stone	2 0 stone
Haddock	2 11 stone			5 0 stone	3 6 stone	3 9 stone	4 1 stone			3 0 stone	3 0 stone	2 11 stone
Cod	2 4 stone				3 6 stone	3 6 stone	3 6 stone	5 6½ stone		3 0 stone	3 4 stone	2 11 stone
								4 8 stone				
Pollock	1 9 stone			3 0 stone	1 6¼ stone	1 11 stone		3 8 stone				3 6 stone
						3 0 stone		2 0 stone		2 8½ stone		
Mackerel				2 3 stone	0 3 each	0 6 each	2 4 stone	0 4 each	3d. & 6d.	3d. & 9d.	3 11 stone	2 0 stone
Herring					0 1½ each	2 0 stone	1 6 stone	1 11½ stone	3 0 stone	1 9 stone	1 10 stone	2 0 stone
									0 2 each	0 1 each		
Flounders	3 6 stone	6 10 stone		4 0 stone	3 6 stone			3 10½ stone	4 8 stone	4 0 stone	3 8 stone	4 0 stone
Witches					4 8 stone	4 0 stone	4 8 stone		4 8 stone	6 0 stone	6 6 stone	4 0 stone
SMOKED FROZEN:												
Haddock	5 0 box	7 0 stone	8 6 box	4 6 stone	3 6 stone	4 0 stone	4 4 stone	6 6 box	4 8 stone	4 8 stone	6 6 stone	4 8 stone
Fish Fillets	6 6 box	3 0 stone	6 0 box	5 6 box	3 6 box	6 0 box	4 8 stone	6 6 box	4 8 stone		6 6 stone	6 0 stone
											7 1 stone	
Kippers	4 0 box	4 0 box	6 6 box	8 0 box	5 0 box	5 0 box	4 2 box	5 0 box			7 0 stone	8 0 stone

SMOKED FROZEN: London: Grant & Mayo

Fish	National Brand, 6s. box
Fillets	Sweet Briar, Brand 4s. box
Kippers	5s. box

SPECIAL INSTRUCTION FOR SCOTCH CURING OF HERRING.

Supplementary to the Regulations made under The Fish Inspection Act 1914.

The capacity of the Scotch barrel and half-barrel must be that of the larger size mentioned in clause 2, appendix 1 (page 22) of the Fish Inspection Act, namely, 26 2-3 gallons and 13 1-3 gallons Imperial measure respectively.

A hardwood barrel is doubtless the ideal one in which to cure and market herring. Such a barrel would be expensive, however, when new, although there might be the advantage—a doubtful one—of having it returned to be used again.

In the herring export trade of the British Islands a barrel, made of Swedish spruce staves, is used almost entirely. It serves for one season only; but much care is taken to make it strong and tight, so that, all things considered, it is the most serviceable one used in the herring trade today.

Spruce is comparatively cheap and plentiful. Spruce staves are easy to shape and dress, and when properly seasoned and put together in a barrel are capital retainers of pickle.

This fact, hovever, should be kept steadily in mind, that the staves of barrels intended for use in a trade that pays a very high price for pickled herring must be cut from the best and soundest spruce and not from any odds and ends of logs that cannot be used for any other purpose.

For that reason the packers must impress upon the coopers the need of using sound staves, free from what are known as "sappy ones" while the cooper must refuse to accept from the mill staves that are unsuitable.

The staves for a "Scotch" whole barrel must be cut 31 inches long and 11-16 thick, and for a "Scotch" half-barrel, 24 inches long and 9-16 inches thick. The heading for whole barrels should be 3-4 inches and for half-barrels 11-16 inches thick.

The barrels in the making should be thoroughly heated over a strong quick fire. This draws any remaining sap out of the staves, and, of course, causes them to bend easily into shape. All staves, except those cut from the heart of the tree, when set up in a barrel preparatory to heating and trussing should show the growth rings turning inwards in the natural way; otherwise, the staves will be inclined to buckle under the pressure of trussing.

The inside diameter of the end truss for a whole barrel is 18 inches and of the bilge hoop 21 inches; intervening hoops should be in proportion thereto. For a half-barrel the inside diameter of the end truss hoop is 14 3-4 inches, and of the bilge hoop 17 inches; intervening hoops in proportion.

Barrels and half-barrels made in accordance with these measurements will be of the required capacity, provided that sufficient wood is put into them and that they are properly trussed.

A set of truss hoops consisting of eight, or at the very least six hoops, should be used to ensure that the bilge, quarters and ends of the barrels are equally well hammered together.

In trussing care should be taken to hammer out any staves, whose outside edges are not quite flush with those of the staves next it.

After the barrel has been trussed, and before it is hooped, the staves should be dressed on the outside. In other words, the rough saw marks should be smoothed away. For this purpose a tool known as a "plucker" is used by Scotch coopers. It is about the size of a carpenter's plane; but as it is intended to shave the staves crosswise and not lengthwise its face is hollowed to conform to the rounded side of the barrel, while its iron is used without a cover.

To work this tool the barrel is placed on its side, against the knees of the operator, at a convenient height. The plucker is then grasped by the short handles which project on each side of it, and pushed outwards and drawn inwards with quick motions until the whole outer surface of the barrel has been gone over.

The outside of the barrel should thus be made as smooth and clean as possible; but care should be taken to guard against the staves being thinned and weakened by shaving too much off with the "plucker." It is not advisable to plane the staves before putting them into a barrel, that is, before trussing, because trussing hoops do not grip on the smooth surface. The outside of the head and bottom of the barrel should also be planed.

Coopers must bear in mind that all edged tools used in barrel making should be kept always in a keen and clean-cutting condition.

The ends of the staves at one end of the barrel should be bevelled sufficiently on the inside to allow the head to be easily taken out or put in. This is known as the head end. At the other end the staves should be left unbevelled. This is known as the bottom end.

Whole and half-barrels should be hooped with three good wooden hoops on each quarter; but if the wooden hoops are small, four should be used.

Before proceeding to hoop the barrel a mark should be run around each quarter by means of a guage, down to which the lower quarter hoops should be driven in order to avoid having them too far down on one barrel and not far enough on another.

Each wood hoop should be carefully measured for notching, and then driven firmly to its place.

Both head and bottom ends of whole barrels should be bound with a two inch iron hoop; and ends of half-barrels with one and one-half inch iron hoop.

All knots, black ones especially, in the staves and heading that are likely to leak should be carefully covered with good putty on the inside of the barrel.

FROZEN FISH IN GREAT BRITAIN.

(To the Editor of "The Fish Trades Gazette.")

Sir,—I beg to offer my experience as a retailer on the above subject, for the benefit of whom it may concern. I had better state here that by business is 70 per cent ready money.

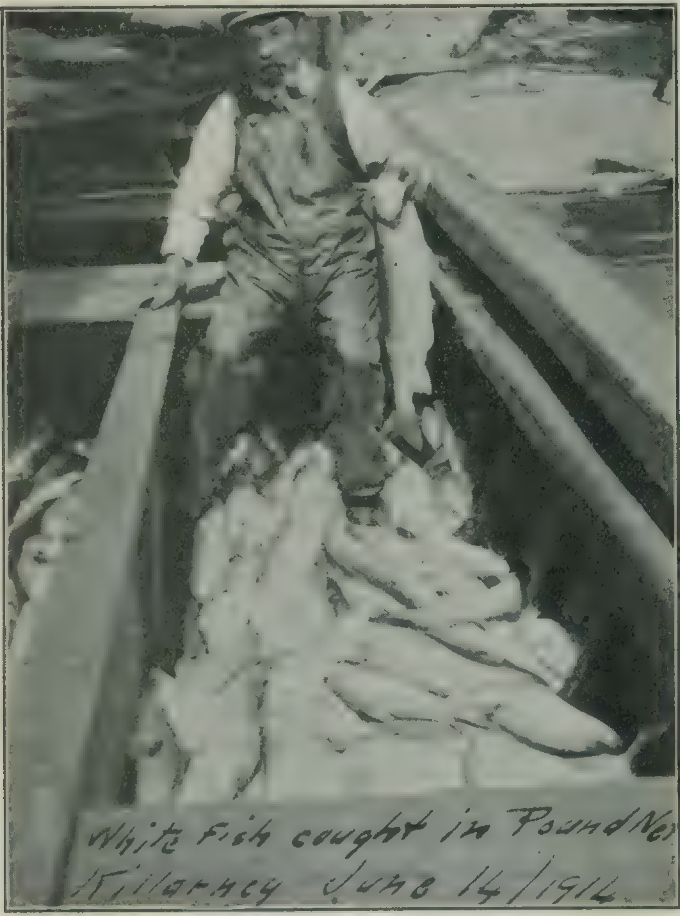
When I first decided to stock Canadian salmon and halibut I advertised it, and always make a point of selling it as such. I find it a very profitable line indeed, and much appreciated by my customers. At present I am doing quite a good trade. I also find many purchasers of these articles come for them where they would not have been customers for anything else. I buy only the best grades, and if either is not satisfactory or obtainable, another brand inferior is left alone.

Halibut.—I choose well fed fish from 3 to 5 stones each; having more fat in them, they retain their flavour better, which is not obtainable in small fish; besides, they do not shrink so much in thawing.

I firmly believe Canadian fish is come to stay if a high standard of quality can be maintained, and a reduction in the price (with a profit to the shipper) as our own fish gets cheaper.—H. PHILLIPS.

LAKE ONTARIO YIELDS A RICH HARVEST OF FOOD.

A great deal of the fish which the central district of Ontario uses comes from old Lake Ontario, and although the fishermen do go out in dripping oilskins, they do not venture forth in sailing vessels, but a most up-to-date little motor launch, which is filled to the brim with fish nets, quietly slips away in the sunset flow every evening at the same hour. Out and out they go until the fishermen reach the place they think most suitable, and then the great nets slip gently down into the cool depths below to spread themselves like a fence along the bottom of the lake until only the floats are left above to betray the spot where they treacherously lie in wait to catch the unwary fish and hold them tightly in their spidery clasp no matter how hard they may struggle to free themselves.


White Fish caught in PoundNe
Killarney June 14/1912

But the weather is not always fair and sometimes the waves are mountainous high when the little launch puts forth at evening with its cargo of nets, or in the early morning when we are all calmly sleeping in our beds, the fishermen drag up the dripping nets with their precious load of fish, which may come to our tables that night perhaps, for us to eat with never a thought to spare for the men who brave the dangers of the lake to furnish us with food.

These nets alone are worthy of consideration for they are quite valuable and must be very strong indeed. They are called gill nets because the fish swimming along the bottom of the lake cannot see the nets, which form a sort of fence before them, and so they swim right into them and their heads go right through the meshes. But when they try to wriggle free again the strong net catches them behind the gills and there they must remain, helpless prisoners to the appetite of men. These particular fishermen, whose headquarters are on the sandbar at Hanlan's Point in the summer time, have about 3,000 yards of net in all, which is comprised of eight nets, Each net weighs about 20 pounds, and before the war used to cost $4 a pound, but the flax from which these extra strong nets are made has always come from Russia or poor ravaged Belgium, so now these countries have been compelled to raise the price of flax, with the result that now a good fish net costs not $4 a pound, but $6. The fisherman when he needs a new net must pay not $80 for it, as he formerly did, but $120.

The average life of even the best of nets is only two years, and to last even that long they must have lots of mending. Every morning the fishermen may be seen on the Island patiently winding their nets like huge spider webs in the sun on great wheels, which revolve slowly to their touch, and permit every portion of the net to come under the warm drying rays of the sun. This prevents their rotting, and then they are dry and ready to be used again at seven o'clock that evening. It also gives the fishermen an opportunity to do any small mending which is necessary, but the most of the mending is reserved for the winter time, when your fisherman is really a man of leisure and has ample time at his disposal to get his nets in readiness for the next season's work.

It is not a very long season, and lasts really only from April until August for whitefish and trout, but in the fall the herring season commences, and lasts until quite late, for it seems that with fish as with everything else, each species has its own particular season. The average catch is usually about 150 pounds daily, and is brought fresh and glistening from the waters right into the city to a wholesaler, who gets it out to his customers in a surprisingly short time, while it is still beautifully hard and firm, and as different to the fish which has to travel long distances (even though carefully packed in ice) as it can possibly be. There is nothing to equal the flavor of our whitefish if it comes to your table crispy, fresh from the cool green depths of the lake. "Why," said one sun-tanned fisherman to me, "there's nothin' on earth to beat 'em! You get a boatload of nice, fresh whitefish and you'd just think from the smell of 'em that you had a whole boatload of fine, fresh cucumbers! That's just the way they smell when they're fresh, Miss! They're just fine!"

Every evening at seven the nets are laid and left until four o'clock the next morning, and in the misty semi-gloom of early daybreak when all the world is still, the heavy nets come up with their glistening load, God's gift of food to the slumbering earth. This is the daily routine, except on Sundays, for our fishermen do not work on the Sabbath day, but leave the nets dry from Saturday evening until Monday morning, with the result that Monday mornings catch is always unusually heavy.—Peterborough Review.

The season for salting herring at Pender Harbor closed on January 15th. Approximately ten thousand barrels were put up, and the pack realized from $7 to $9 per barrel.

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Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, APRIL, 1916 No. 4

Yates, Digby]

In Summer Rig. Outward Bound for the Banks

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ONTARIO
Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted —October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries

Of the Province of Quebec

Department of The Naval Service

FISHERIES:

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $34,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on May 1st, 1915

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)............	....	....	....	1 April to 15 June.
Maskinonge..............	....	....	....	15 April to 15 June.
Ounaniche................	....	....	....	1 Oct. to 30 Nov.
Oysters..................	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs................	Oct. 1 to May 10 July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	....
Pickerel..................	....	....	....	April 15 to May 15.
Salmon (netting)...........	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb. 28	Aug. 1 to April 30.
Salmon (angling)...........	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Sept. 16 to April 30.
Smelts....................	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	April 1 to June 30
Sturgeon..................	....	June 1 to July 1......	....	June 1 to June 30.
Speckled Trout............	Oct. 1 to March 31.	Oct. 1 to March 31.	Cct. 1 to March 31.	Oct. 1 to April 30
Salmon Trout..............	....	....	....	Oct. 15 to Dec 1.
Whitefish.................	....	....	....	....

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)............	a15 April to 15 June.	....	....	....
Maskinonge..............	15 April to 15 June.	....	....	....
Ounaniche................	....	....	....	....
Oysters..................	....	....	....	May 1 to Aug. 31
Quahaugs................	....	....	....	....
Pickerel..................	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	....
Salmon (netting)...........	....	....	....	....
Salmon (angling)...........	....	....	....	....
Smelts....................	....	....	....	See regulations.
Sturgeon..................	....	gMay 15 to June 15.	gMay 15 to June 15.	....
Speckled Trout............	Sept. 15 to April 30.	....	....	....
Salmon Trout..............	hNov. 1 to Nov. 30.	....	....	....
Whitefish.................	hNov. 1 to Nov. 30.	Sept. 15 to Nov. 19.	iSept. 15 to Dec. 15.	....

a—Except in Lake Erie west of Pt. Pelee and around Pelee Island, where close season is May 25 to July 15.

b—Except on leased areas, where close season is from 1 July to 31 Aug.

c—No close season in St. Clair River and off Lambton County.

d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.

e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.

f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.

g—Sturgeon fishing prohibited until Jan. 1, 1916.

h—No close season in Lake Erie.

i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.

For British Columbia See Regulations.

Canadian Fisheries Association

Honorary President:
HON. JOHN D. HAZEN, K.C., LL.D., M.P.
Minister of Marine and Fisheries.

President:
D. J. BYRNE, ESQ., Montreal.

Vice-Presidents:
S. Y. WILSON, ESQ., Halifax.
W. H. BARKER, ESQ., Vancouver.

Secretary-Treasurer:
F. WILLIAM WALLACE, ESQ., Montreal.

Objects of the Association

(a)—The protection of the interests of Vessel Owners, Fish Curers and Packers, Fish Merchants, Boat Owners, Fishermen and all persons directly engaged in the production and distribution of the Fishing Industry of Canada, and allied industries. The legal enforcement of their just claims, the due representation of their interests and requirements, the promotion or opposition for their benefit of legislative measures, and the promotion of a co-operative spirit among all engaged in Canada's Fishing Industry for their mutual benefit.

(b)—The securing of just and fair rates for the transportation of fish, the enforcement of prompt deliveries and the reduction of high rents and tolls.

(c)—The promotion of improvement in Fishing methods, curing, packing and transportation: also in harbour accommodation, navigational and other aids for Fishing.

(d)—The prevention of frauds upon and by those engaged in the several businesses mentioned in Clause (a) or any of them.

(e)—The collection and circulation of statistics or other information relating to the several businesses mentioned in Clause (a) or any of them.

(f)—The organization and dissemination of information of an educational nature among producers, distributors, retailers and consumers to the benefit of the Industry in general.

(g)—The Conservation and development of the Fishing Industry on commercial, scientific, and educational lines, and the consideration of all general questions which affect the interests of those engaged in the several businesses mentioned in Clause (a) or any of them, or which in any way relate to the Sea and Inland Fish Trade or Fisheries of Canada, and the carrying out of the decisions arrived at.

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Canadian Fisheries Association

APPLICATION FOR MEMBERSHIP

I hereby apply for Membership in the *Canadian Fisheries Association,* and agree to conform to the Constitution and By-Laws if elected. I am entitled to membership under Section and the annual fee is herewith enclosed.

Name

Occupation

Address

Date

SCALE OF ANNUAL FEES

(1)—The first member, the principal of any firm, partnership or corporation carrying on a business in Canada under his or its own name, and a business which gives employment to help of any kind	$10.00
(2)—Additional representatives from the same firm or Corporation	$3.00
(3)—Individual members, including fishermen and those who do not employ help, and who are interested in the fishing industry	$1.00

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THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA AND NEWFOUNDLAND THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE OF FISH PRODUCTS

F. WILLIAM WALLACE
EDITOR

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Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, APRIL, 1916 No. 4

April Fish Day Calendar

1916			APRIL			1916
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
						1
2	3	4	$\boxed{5}$	6	$\boxed{7}$	8
9	10	11	$\boxed{12}$	13	$\boxed{14}$	15
16	17	18	$\boxed{19}$	20	$\boxed{21}$	$\boxed{22}$
23	24	25	26	27	$\boxed{28}$	29
30						

FISH DAY A GREAT SUCCESS.

The Annual Canadian Fish Day, inaugurated on February 29th, under the auspices of the Publicity Committee of the Canadian Fisheries Association, was a great success—in fact, greater than the most sanguine expectations of those responsible for the movement. The idea first mooted by Mr. J. A. Paulhus, Chairman of the Committee, spread like wildfire throughout the country, and had the hearty support of the fishing industry from Coast to Coast. In Montreal, Toronto, Winnipeg, Quebec, Ottawa, Vancouver, St. John, Halifax, the local newspapers gave great publicity to the Fish Day, and the trade advertised extensively. In Vancouver, the occasion was made a regular fisheries festival, which culminated in a banquet. Elsewhere in this issue a full report of the Vancouver Fish Day is published.

The posters designed and distributed by the Association were displayed all over the Dominion, and it can truthfully be said that February 29th was the first gun in the extended publicity campaign which the Canadian Fisheries Association intend to pursue in the future for the purpose of making our fish and fishery products better known to the consumers of the country. As to the benefit which accrued through Fish Day to the retailers and fish salesmen, we have undoubted evidence that the sales were doubled, and in some cases increased by four times as much as on any previous day. Not only has this increase been confined to February 29th, but we learn that the publicity given the fisheries on that day has resulted in a material increase in the sale of fish ever since.

True, it is the Lenten Season, but from what we learn from retailers, the sale of fish during the present month has exceeded all other years.

The Canadian Fisheries Association intend making the Fish Day of 1917 a still greater effort, and plans are even now being discussed for the work to be done next year. If the Association has done nothing else but make a success of Fish Day, its efforts have been justified and it behoves all who are engaged in the fishing industry of the Dominion to become members and assist in the object for which the Association is established.

EXPRESS CARTAGE CHARGES ON PACIFIC HALIBUT.

The amended tariff issued by the allied Express companies and cancelling the cartage by the express companies on carloads of Pacific halibut at points of destination, and which was intended to go into effect last January, is now under consideration by Sir Harry Drayton, Chairman of the Board of Railway Commissioners.

When the express companies made their announcement last January, the Canadian Fisheries Association, realizing that the move would be a disastrous one for the fishing industry interested, appealed to the Railway Commission for a suspension of the tariff until the case could be threshed out before the Railway Commission. The Commissioners held a session on the matter in March, and Mr. A. H. Brittain, Chairman of the Transportation Committee, handled the case for the Canadian Fisheries Association, with the able assistance of Mr. J. E. Walsh, Transportation Expert of the Canadian Manufacturers Association. The evidence was taken from both sides, and the matter is at present under deliberation by Sir Harry Drayton. A decision should be reached shortly, and in the meantime the tariff is suspended until judgment is given.

FISH FOR CANADIAN SOLDIERS AT HOME AND ABROAD.

The fish which was shipped from Canada to Great Britain and distributed to the Canadian troops in England and France, under the direction of Major Hugh A. Green, was a great success, and was enthusiastically received by the men. It was particularly opportune that the first shipments were distributed at the opening of the Lenten Season, and the soldiers felt that the Canadian Commissariat Department were going to great lengths in catering to their welfare in the matter of seasonable foods. We are able to announce that tenders have been called for an increased amount of fish to be supplied weekly for the overseas troops, and there is no doubt whatever but what the supply will be maintained during the duration of the war.

A most important announcement which we are able to give is that the Militia Department of Canada have passed an order whereby a soldier in Canada can have the option of having half a pound of fish or half a pound of meat daily, upon request. This will be the means of absorbing a vast amount of fish in Canada alone, and fish dealers throughout the country will have an opportunity of catering to the various military units located in their vicinity. The Canadian Fisheries Association have, for a long time past, been working to have this amendment to the military ration list effected, and we are glad to announce the fact that the desires of our Association have been met with.

The fish called for in the tender forms which are now being printed are, salmon, halibut, codfish, haddock, white fish, pickerel, herrings, and finnan haddie.

LOBSTERS.

It is a great pity that a general size limit on lobsters has not been enforced in the districts on the Atlantic Coast, from whence they are taken. The catching of the small "tinker" or "short" lobster goes on apace, and, if continued in, will result in the extinction of the species. The no size limit regulations as far as the catching of lobsters is concerned, outside of Charlotte and St. John Counties, in New Brunswick, is tantamount to a carte blanche order to go ahead and exterminate the crustaceans.

The lobster regulations have been the subject of much controversy in the past. Commissions and experts have made their reports and suggestions, but it seems that those who wish to work legislation in favor of the lobster, find their hands tied by the various political factions and policies, which in many cases are doing nothing but creating injury to our natural resources.

The writer has talked the question over with numerous lobster fishermen, and there is not one but what would submit to a regulation size limit. They realize that the "short" lobster, worth only a few cents, sold as a "short," if returned to the water and allowed to live until it is at least nine or ten inches, is ten times as valuable.

The whole thing is in a muddle. Those who wish to save the lobster have to consider the interests of the packers, who have invested much money in plants and gear. Their investment is a large one, and it is only the "shorts" which they get for canning purposes. The large full grown lobster of the regulation size is exported to the United States by the fishermen themselves. The question is a vexed one, and would tax the wits of a Philadelphia lawyer to evolve a means of saving the lobster satisfactorily to all concerned. The Government is endeavoring to do something in the way of artificial propagation. But all the lobster hatcheries in the world will not stave the impending extinction. The latter event will constitute one solution of the problem. When the lobsters are cleaned up, there will be no need to worry about them. Do we want them exterminated? The Canadian Fisherman would be glad to publish correspondence from interested persons, fishermen and packers, giving their ideas and suggestions on the subject.

IS FISH GETTING SCARCE?

We in Canada are proud of our extensive fisheries, and make the boast that we have the greatest and most prolific fisheries in the world within our territorial waters. Yet fishermen on both oceans state that the fish are getting scarcer. The halibut fishermen of the Pacific who used to pick up a hundred thousand pounds in a few days' fishing in Hecate Straits, and the waters adjacent to Vancouver and Prince Rupert, have now to journey many hundred miles to catch a trip, and be from eight to fifteen days on the voyage catching the same amount of fish. In the Maritime Provinces, fishing vessels could pick up a trip in the inshore waters within a few days, and do all their fishing handy to the home port. Nowadays the state of affairs is changed. The waters which once yielded abundant harvests of cod, haddock, hake and halibut are cleaned out, and a fare is only to be picked up after a great deal of hunting for the fish in a long journey off shore.

In the case of Brown's Bank, which used to be a wonderful haddock ground, the fish, from all reports, are getting scarcer, and fishermen using that ground for winter haddocking are beginning to ask themselves "Are the fish becoming cleaned up?"

Looking at the question in the light of the scarcity of fish on the grounds which once teemed with them, it would appear as though they were becoming extinct. But on the other hand, there are several things which must be taken into consideration. As soon as a good fishing ground is discovered, fishing vessels flock there, and as the years roll on and the demand for fish becomes greater, more vessels set their lines in these fishing areas. Great quantities of fish are captured and dressed down on the ground—the offal being thrown overboard. The huge quantities of fish viscera thrown overboard has the effect of "gurrying" the ground, and bringing swarms of scavanger fish, such as dog fish, sharks, sculpins, monk fish, etc., to the place. The presence of these tends to drive the other fish away. Another factor to be taken into consideration is the immense quantities of hook and line gear lost by the fishermen on the grounds. These trawls lie on the bottom with the hooked fish rotting on them, and it will be readily seen that a bank or fishing area which is literally covered with miles of lost gear and heaped with fish gurry will not be an area to which the fish will return for feeding purposes. It simply means that they will go somewhere else. In the case of Brown's, which for years has been a famous haddock fishing ground, the bank has been so heavily fished by the Canadian and American fleets that it is beginning to get played out, and the latest reports show that the haddock are being caught in greater quantities upon Western Bank this year than upon Brown's.

Some years ago Green Bank, off the Newfoundland Coast, was a famous halibutting ground, but such a large fleet of vessels voyaged there and caught the fish, that they soon gurried up the bank, and the halibut disappeared. Recently, however, some American halibutters made sets there and found the fish in good quantities, which goes to show that after the Bank had had a rest, the fish returned.

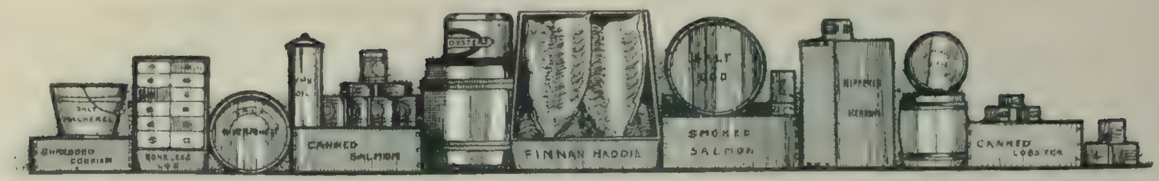
In our opinion, there is just as much fish in the sea as ever came out of it, but the heavy fishing on the well known banks and inshore grounds have chased the fish away, and they go somewhere else. This necessitates hunting for them, and going further offshore, but there is every indication that the fished-out banks and grounds will see the fish return to them after they have had a rest, and the contamination of gurry and lost gear eliminated through time. This has been proved in many instances. Fish which were regarded as being almost extinct in certain areas, have returned. Big trips of halibut have, we understand, been taken from Hecate Straits, and waters which were thought to be fished out. Mackerel, which a few years ago was thought to be almost an extinct species, returned to our shores in greater quantities the last two years. Hake fishing in the Bay of Fundy and on the Grand Banks resumed their plentifulness again after many lean years, and the same applies to many other varieties of fish in various waters.

It is the only the old law of nature asserting herself. No particular spot for fishing is inexhaustible. Everything needs a rest, and it will be found a general rule that the fishing grounds that have been left alone for a few seasons will again yield their old-time harvests. It means, however, that our fishermen have to go further afield for their catches. The inshore grounds are being fished out, and the fish are migrating to places where they can feed and spawn unmolested by fishermen and free from the taint of gurried ground and the scavenging fish which flock to such places. There is no doubt about it that they will return again.

PROPAGATION OF HADDOCK IN THE PACIFIC.

There is cod in the Pacific Ocean, but no haddock, and for many years the Pacific fishermen have cast envious eyes upon the big and increasing trade done in Canada in the luscious finnan haddie of the Atlantic. Our Pacific friends are not content with their monopoly of the salmon and halibut business, but like Alexander of old, are anxious for new spheres to conquer, and it has always been a matter of regret with them that the haddock confined its habitat to the Atlantic Ocean.

The Editor has been asked whether it would be possible to propagate haddock upon the Pacific if the spawn were sent out from the Atlantic. Discussing the matter with Dr. Edward E. Prince, Dominion Commissioner of Fisheries, who conducted several successful experiments in the propagation of haddock in British waters some years ago, he stated that it would be quite feasible and the only difficulty would be in the carriage of the spawn from the Atlantic to the Pacific Coast. Dr. Prince pointed out that shad eggs had been transplanted successfully, and with proper care and perseverance there was no reason whatever why haddock could not be introduced in Pacific waters.



Echo of the National Fish Day

(By **J. A. PAULHUS**, Chairman of the Editorial and Publicity Committee).

The Fish Day inaugurated in this country on the 29th of February last, was a tremendous success. It has been a revelation to the fish industry at large, and has proved once more that "Nothing succeeds like success."

It is really wonderful what an idea can do when it is adroitly launched out, put before the public at the right time, and in the proper manner.

In this instance the ground was ready — had been prepared by careful and vigilant hands; the seed was good and sound, and with the rain of publicity and the sunshine of optimism, the harvest has been bountiful and abundant.

Though the idea was not received with the same warm enthusiasm everywhere, nevertheless, the results obtained are very gratifying, and they more than warrant, and fully justify the necessity of celebrating a Fish Day yearly.

The Maritime Provinces and the cities bordering the Pacific Coast have nobly done their duty. Montreal, Toronto and Ottawa have also responded to the call of the fish cause in a manner which gives them credit, and which will add emphasis to the proud titles they have already won, viz.: the glorious Metropolis of the country, the Queen City and the Washington of the North. Montreal was bound to support the movement. It is there that the idea originated; it is there that the movement had its initial push—such an impulsive start, that the momentum acquired by the idea when it reached the shores of the Atlantic and Pacific Oceans amazed the promoter of the Fish Day and his associates in the project.

This is only the beginning, however, of a campaign which will be conducted more eagerly and with more determination than ever. We may say that from now the Fish Day is an institution in the country, and that it will live, thrive and prosper. The experimental stage is passed; already suggestions are coming in from every corner of the country for improvements and preparation for the next year's Fish Day. This is a good omen, and is really what is required.

Let everyone who has something to say in the matter come forward. Each idea, each plan which may help to improve and give more prominence to our National Fish Day should be given out. Some objections to the season of the year, and also to the date, have been made. Of course the 29th February could obviously not be a yearly date—Leap Year being only a four-yearly visitor. The idea of the promoter was to make use of this extra date this year, and so by the novelty of it to impress the Fish Day more easily on the minds and imagination of all those interested. This has been done and many "whys" and "what's" have been provoked from inquisitive folks, and so the odd date has not failed in its purpose. As to the best time of the year for the Annual Fish Day, there are many contrary opinions, but when everybody has been heard from it will surely be possible to come to a decision as to date and season which will please all. The same will apply to any other questions which will necessarily arise over the organization of the next Fish Day, and whatever decisions are reached we hope they will be for the interests of the fish industry of Canada.

I sincerely thank everyone in the trade and every newspaper for the support and publicity given to my idea and the innovation.

It seems that everyone has understood my motive—which is fully and essentially and now more than ever, the development of our best asset, the Canadian Fisheries.

B. C. HERRING FISHERMEN'S ASSOCIATION

Fishermen's organizations are numerous in British Columbia. Vancouver is the headquarters of the Deep Sea Fishermen's Union with Russell Kearley, as agent. Kearley is a Newfoundlander who used to fish in the same dory with A. W. Picott, now Minister of Marine and Fisheries in that Island Colony.

The newest association is the Herring Fishermen's Association with Captain George Harry West as President. Captain West is an old timer, a first-class fisherman and the Pericles of the water front. He claims a membership of 200 for his association; with a capital of $75,000 in boats and gear represented by his associates.

Captain West desires many changes in the Canadian herring fishing regulations. He wants no closed season except 10 days a year to allow spawning. He wants a two inch gill net not a two and a half inch net. In deep water he wants no limit to the length of net. He wants license fees abolished and a tax on the output of 10 cents to 15 cents a ton substitutes. He favors revoking all herring seining licenses but would allow halibut boats to seine for their own bait.

Perhaps the most important proposal from the Herring Fishermen's Association is the demand to have the association represented on the Fisheries Advisory Board that drafts fisheries regulations. All these matters are engaging the attention of the officials of the Federal Department of Marine and Fisheries.

Canada's First Fish Day in Vancouver, B.C.

(By F. J. HAYWARD.)

Yes, it was a success. And now that more than a month has gone by since February 29th, the glow of satisfaction felt by those who were responsible for the success, still remains.

We all know that Vancouver is a very long way from Montreal where it was ordained that the day said to be responsible for so many weddings, was to be Canada's first FISH DAY. Weather and heavy snow delayed the mails, and in consequence we had about two weeks to get busy. But this is quite long enough for the West, when she makes up her mind to undertake anything.

In the first place many residents of Vancouver were sorely puzzled as to the reasons for taking the odd day of Leap Year. To the lay mind it is a long cry between fish and matrimony. The public were first under the impression that Friday had changed its position in the weekly calendar. Then again, it asked if FISH DAY was to follow the four-yearly cycle like the Sockeye salmon. But with all its ponderings the public backed us up nobly.

To the success of the day we are indebted to the B. C. Wholesalers' Association of Vancouver, who took up the matter in a most business-like and whole-hearted manner, which speaks worlds for the future success of the Association. At a general meeting called, committees to take care of all arrangements were appointed. The "Eat Fish" posters sent by the Canadian Fisheries' Association were eagerly welcomed and a hurried "night-message" sent for more. These were supplemented by large banners carrying the same wording, for display on delivery cars and waggons and on street cars.

All fish-delivery vehicles carried several of the small posters supplied by the Canadian Fisheries' Association. These came in opportunely. The "jitney" was then coming to life again after an enforced idleness occasioned by a fall of snow that shattered all our boasts of wonderful winters. There are many individuals in Vancouver who ride in jitneys, and who consequently look out for route cards displayed by cars in this business. The small posters were not unlike some of these route-cards, and so were read by many who otherwise would have not had their attention drawn to them. Then observers' attention was again drawn to fish by the larger displays on the street cars, etc.

The Vancouver wholesale grocers, wholesale produce people, express companies, transfer companies, retailers, fish dealers, peddlers,—yes and even ferry boats—all carried the good tidings. In the week preceding FISH DAY the city was talking fish, and one was told proudly by many persons that it was an excellent idea and that it would result in many more doing the same as they do, that is eat fish many times a week.

Fish markets, grocers and all who handle fish whether fresh, cured or canned, felt it was up to them to do their share. And they nobly did it. The window display was an education to the public, and a display of artistic window dressing that called for general admiration.

Hotels and restaurants were canvassed to provide special menus for THE DAY, and nobly did they respond. I know for a fact that on February 29th, there were many citizens of Vancouver who had fish for every meal, and who felt it their duty to do so. They felt all the better for the diet also.

Dealers have told the writer that their sales on that day were far in excess of what they anticipated in many cases. One hand-cart dealer has stated that his sales even after THE DAY have doubled, and he is daily getting more customers.

We are also indebted to the daily press of the city and of Nanaimo for its hearty co-operation. We all know that the newspapers depend upon advertising for their revenue, and as very little of this is done by the fishing industry, it serves to show the whole-hearted determination of all parties to make the day a success. Valuable space was devoted by the papers in special notices and "write-ups" that went a very long way towards the success attained. The "Nanaimo Fress Press" devoted a great part of its editorial on the 28th to the matter. I even hear that the Puget Sound papers also took up the question. Our hearty thanks are due the press for its public spiritness and co-operation. The Vancouver papers also carried the following advertisement a day or so before THE DAY, when they would do so much good:—

CANADA'S FISH DAY
FEBRUARY 29th.
Be sure and EAT FISH on TUESDAY,
FEBRUARY 29th., to celebrate
CANADA'S
FIRST NATIONAL
FISH DAY
Try some new variety as well as your favorite dish.
EAT FISH, FEBRUARY 29th.

And the public did.

It was also decided by the B. C. Wholesalers' Association to wind up the day with a banquet, and to this end a committee to arrange for this was appointed. This committee was composed of Messrs. B. E. Neville, Harry S. Ives, F. E. Payson, and working in conjunction with these gentlemen were Messrs. Wm. Hamar Greenwood and F. J. Hayward. Mr. Greenwood was appointed chairman, and a capable one he proved himself to be. Under his guiding hand each member of the committee took up his duties and carried them through faithfully. The result of their work was that on the evening of the 29th, such a gathering came together in the spirit of good fellowship, that has nowhere else been seen in Canada before. Every person or business in any way connected with the industry was present. There were Ottawa officials; Dominion and Provincial officials; civic officials; army and navy representatives; representatives of fresh, frozen, salted and canned fish firms; wholesale and retail fish dealers; fisherman; fishing supply men; fish brokers; transportation representatives; express agents; steamship agents; box makers; can makers, coppers; transfer agents; insurance agents and many more. (If I have missed any, please forgive me for you were all there).

At 8.30 p.m. about one hundred and seventy-five persons sat down to tastily laid tables in McIntyre's Cafe (Jimmy's). The menus were well prepared and showed a good fare provided, as below:

Relishes
Queen Olives Dill Pickles
Chow Chow
Hors d'Oeuves
Olympia Cocktail.
Soup
Bisque of Crab Clam Chowder
Fish
Fried Halibut Cheeks, Tartare Sauce
Entrees
Shrimp Patties
Boiled Kippered Salmon, Drawn Butter
Joints
BAKED STUFFED BRITISH COLUMBIA SPRING SALMON
Boiled Ling Cod, Oyster Sauce
Broiled Smelts, Anchovy Sauce
Fried Perch, Cream Sauce
Vegetables
Boiled and Mashed Ashcroft Potatoes
Stewed Corn Green Peas
Salads
Smoked Halibut Salad
Kippered Salmon Salad
Combination Fish Salad
Dessert
Deep Apple Pie a la Mode
Coffee.

Can you beat that for a fish banquet? Notwithstanding the fact that there was no meat on the men

After the silence by all being busy with the above, the toast master. Mr. W. Hamar Greenwood, got into harness. The National Anthem was sung and the first toast "The King" was proposed by the Mayor of Vancouver. His speech was a patriotic one and full tribute paid to the Army and Navy.

Lt.-Col. Mullins, Inspector of Supplies and Transport at Ottawa replied in fitting manner. He also gave the history of fish being placed on the ration list of the Canadian forces, and paid high tribute to the work of the fishing industry's representative in the army, Major "Hughie" Green. His speech was followed carefully by all present and much enthusiasm aroused at his remarks.

Col. F. H. Cunningham followed and great applause greeted his announcement that British Columbia canned salmon was at last to be placed on the British Army ration list. He read extracts from official letters proving this, and his remarks were as follows:

"Success has only been attained quite recently, the Militia Department and the Department of Naval Service having arranged for distributing fresh fish once a week to the Canadian Overseas battalions. United efforts have been made to have Canned Salmon placed on the regular ration list, especially that of the Canadian forces, and the officer having charge of the fresh business will also use his best endeavors in this direction on his arrival in England. For your information, I might say canned salmon is now on the ration list of canteens, but any officer or private desiring the same, must purchase from the canteens; the profit of which canteen, I understand, is to be placed in a fund for the benefit of Canadian wounded soldiers, and the dependents of the same. I am informed that the salmon placed in these canteens is to be British Columbia brand, so long as the quality and supply is available. The species of canned salmon which will have the largest sale will no doubt be of the fall variety, as being less expensive. I might say that about one and a half cans of humpback is equivalent in food value to one can of sockeye. To those gentlemen present interested in the canning industry, I point out it is absolutely necessary that the very best quality of humpbacks be used; in fact, if the humpback salmon is to be a popular article of food on the market, this is imperative; and just as much care should be given in packing the fall varieties as is now given to the far-famed Sockeye. It has come under my notice within the past few days, where objection was made to using humpback on the ground that they were not salmon at all, because they were light in color. The objection was raised by those accustomed to using nothing but the red product. You will thus appreciate the necessity for education in the direction of color.

MR. A. HAMAR GREENWOOD,
Chairman of Committee.

"There is no question that fish would be greatly appreciated by the overseas battalions, if it can be delivered fresh and properly cooked, as I have been informed by officers returning from the front that fish is one of the first foods asked for by convalescing soldiers, and it would certainly be a beautiful change from bully beef."

Mr. F. G. T. Lucas, of the R. N. Reserve, stated it was the duty of all to further the fishing industry of Canada, for it helped in keeping the country going and thus shortening the war. He also paid high tribute to the work of the Navy in protecting the industry, and particular the H. M. C. S. "Rainbow" in the dark days at the opening of the war when Vancouver and adjacent points were in such peril.

MR. A. L. HAGER,
Director Canadian Fisheries Association.

In proposing the Fisheries, Mr. W. H. Barker, President of the B. C. Packers' Association, and Vice-President of the Canadian Fisheries' Association, stated that fish would go a long way towards making the soldiers at the front even more efficient than they are now. He also showed that the canned salmon industry means $40,000,000 to the Pacific Coast. In his own inimitable manner he stated that if all the industries worked to develop their particular resources as the fishing industry did, there would be more prosperity all around, and less "swapping real estate and jack-knives."

Mr. R. R. Payne ("Bob") of the Canadian Fishing Co., Ltd., gave a concise history of the halibut industry, and showed how quickly the West took up advanced methods of fishing. He also advocated a closed season in halibut, a matter that is exercising today both the American and Canadian operators. Mr. Payne also showed that in actual value of fish, the halibut industry runs the canned salmon very closely. His speech made quite an impression, and some of the guests who were not familiar with his branch of the industry wanted to know "who that young man was."

In speaking for the fishermen, on which everything seems to depend, Mr. Harry West did so in an able manner. He was accused of catching the first herring in the West, but modestly declared that a "Scotchman beat him to it." He argued that in ten years' time the herring industry of Canada would bid fair to surpass that of the salmon and halibut. Mr. West is an old-timer on the Coast, and to prove this he stated that the following story he can positively vouch for the accuracy of it. In the time past currency was very rare and unknown practically. Everett, that city of smoke stacks to-day, on Puget Sound, was then a straggling village and at that time wet. A stranger walked in one day and placing a $5.00 gold piece the bar asked for the usual "Old Crow." The barkeeper got scared at the sight of the gold, and refused to serve him. As the stranger went out very thirsty and disgruntled, he met a man in oilskins and sou'-wester coming in the door. The latter placed a cod on the bar, called for his drink, and received his change in smelts.

Dr. A. McLean Fraser, of the Biological station at Nanaimo, and who had hurried from a lecture he was giving in the city, then gave a very interesting talk on the researches his station was doing, and showed how it was helping the fishing industry in tracing and following up the habits of the different fish of the Pacific.

MR. F. J. HAYWARD,
Fish Day Committee (Publicity.)

Mr. John Duncan of the New Westminster Board of Trade paid a deserved tribute to the work of the press, and mentioned that the public was quite unaware of the debt it owes the press. In replying to the toast The Press, Mr. F. Burd, of the "Province," Lieut. E. C. Sheppard of the "Sun," and Mr. Nellems of the

"World," showed that the Press was at all times ready to assist any industry. Mr. Holland also gave a talk on advertising, showing how necessary this was in these days, and that the industry could be greatly extended by judicious advertising.

As midnight was approaching, several speakers begged to be excused, so after singing the National Anthem, the first FISH DAY banquet of Vancouver was brought to a close.

As stated before the whole success of Vancouver's first FISH DAY was due to the efforts of the B. C. Wholesale Fish Dealers' Association, and thanks are hereby expressed to the Canadian Fisheries' Association for its help in sending the posters which were of great service. The following are the officers of the B. C. Wholesalers Fish Dealers' Association: President, Mr. F. E. Payson; 1st Vice-President, Mr. Geo. St. Denis; 2nd Vice-President, Mr. M. Monk; Secretary, Mr. V. F. Johncox; Treasurer, Mr. R. Urquhart.

The prefix "First" before Fish Day is advisedly used, for there will be many more of these FISH DAYS. Mr. Payne voiced the sentiments of the guests when he stated that he looked to attend forty-nine others. Our guests were also very appreciative in their remarks and expressed their intention of coming to the next. What more do we want?

The Outlook for 1916 in the Atlantic Fisheries

Mr. A. H. Whitman's opinion.

Mr. A. Handfield Whitman, the Managing Director of Robin, Jones and Whitman, Limited, interviewed the other day by a representative of the Canadian Fisherman, said:

"During the past season the fishing industry on the Atlantic coast of Canada was never in a more prosperous condition. The fact of the matter is that the demand for dried and pickled fish was materially helped by war conditions. The trade with the United States in green salted cod has developed largely since the outbreak of the war. Moreover, the buying up of about fifty per cent of the Norwegian catch of cod by various belligerent countries was indirectly a good move for the Canadian fish trade. Countries that formerly depended upon Norway for their supply of dried cod have to look elsewhere and Canada, especially Nova Scotia, was able to secure a portion of this business. It is to be hoped that the foothold thus secured may be retained upon the return of normal conditions."

"What is the present condition of the herring trade?"

"The demand for Nova Scotia herring and mackerel has been stimulated by the closing of the North Sea. The United States absorbed all available stocks, resulting in a bare market at the present time. This business not being dependent on water carriage the outlook for 1916 is most favorable."

"The transportation of dryfish is the problem confronting the trade. The cost of transportation was never so high and unfortunately all prospects point to even higher rates. Over in Newfoundland the exporters find themselves with heavy stocks on hand and no means of getting them to market. The Nova Scotia exporters are faring better; their stocks have been more largely reduced, and the chances of securing carriage are greater. It should be added that the transportation facilities to the West Indies are, of course, superior than to Europe, and transportation to the United States had not been seriously affected."

"How does the situation affect the fishermen?"

"The fishermen disposed of their catch to the exporters at good prices and are just now independent of shipping conditions. Of course, a steady increase in the cost of transportation is ultimately bound to affect the producer."

"What effect will present conditions have on Canadian methods of curing herring?"

"I would say that while the large demand in the West Indies and the United States has absorbed quantities of herring from this country that was below the European standard, the general effect will prove beneficial. The improved methods introduced many years ago into Europe are slowly making headway in this country. Nova Scotia packers are finding that herring put up in the British style for the American market are much more profitable to handle than the ordinary pack. Some of the most progressive fish dealers in the country are behind this movement. The standard size for pickled fish barrels has been decided upon and it is expected that greater uniformity in the quality and weight of the contents will follow."

"Are you an advocate of the Scotch system of curing?"

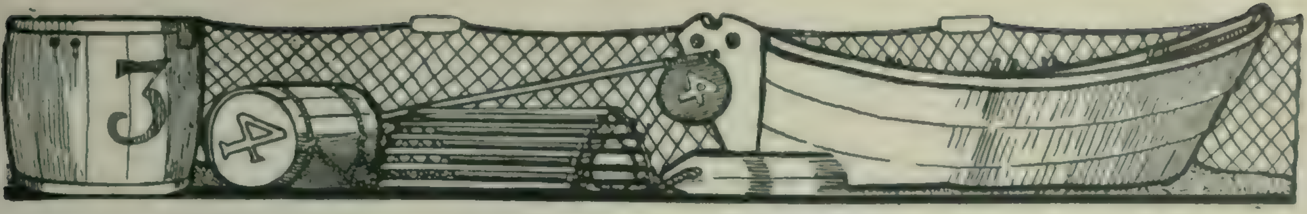
"That system calls for very careful handling. Many attempts at following it have failed owing to lack of proper facilities. Skill and experience are required in this method, for the result is either a well-cured pack or a spoilt pack. The herring are not split and so very careful handling is absolutely necessary. I am of the opinion that improvements that could be effected in the ordinary method of cure would bring very satisfactory results."

"Are you still in favor of a Fisheries Board, Mr. Whitman?"

"Yes, I am. The idea of a Fishery Board for the proper preservation, protection and development of the fishing industry has proved its worth over and over again. One hunderd years ago the pickled fish industry of Scotland was in an unsatisfactory condition. A Fishery Board was established and the simple yet efficient laws evolved under the administration of that organization have brought the fish industry in Scotland to its present profitable condition. The system so organized has been copied by several other European countries. The formation of the present Advisory Board in this country is a step in the right direction. That organization has been helpful to the Fisheries Department in the way of suggestion, even if it has no regulative power. I think, however, that there might be a larger representation on the Board of men in the trade and fewer Departmental officials."

"Where are the best markets just now, Mr. Whitman?"

"Southern Brazil and the West Indies, with the exception of Porto Rico which market is kept glutted with consignments resulting in heavy losses to the shippers. The Brazil markets have been excellent since the war broke out, this owing to the Norway situation. Unfortunately the volume of trade does not warrant a direct steamer service.



THE ATLANTIC FISHERIES

CHARLOTTETOWN, P.E.I.

(Special Correspondence.)

At a conference of representative men from all over the Island, called here this month by the Premier, to discuss, among other matters, industrial conditions, as affected, or about to be affected, by the war, the "Fisheries" formed the subject of an interesting discussion. The concensus of opinion was that the lobster fishery has practically reached the limit of development, and that it would not be advisable to lengthen the season, or add to the number of men. In fact, one of the speakers, W. F. Tidmarsh, manager for the Portland Packing Company, which operates nine large factories, declared that, last season, with one-third less the usual number of fishermen, the catch was fully up to the average. It was suggested by several speakers that the open season be changed, from spring to summer and autumn. The reasons given were that the weather in early spring is cold and stormy, and trying to the man, and that much time is lost.

A. J. McFadyen, of Tignish, manager for J. H. Mynch and Co., one of the largest fishing concerns in the Maritime Provinces, spoke in defence of the present regulations, declaring that the lobster was unfit for food in the summer or autumn. His view was the view of the great majority at the meeting.

It was the general opinion that the fishing industry, in other lines, was capable of great development, especially with regard to cod, hake, herring, mackerel and oysters.

This Island, from its location, should be one of the greatest fishing centres in America, and yet the number of fishermen receiving bounties had fallen off from 3,900 in 1889 to 1,500 in 1915.

One of the great needs of the industry was more technical training. Whilst the farmer is receiving the benefit of large sums spent by the Government, the fisherman is not receiving the attention due him, in that regard. This was the tenor of the remarks made by the representatives of the industry at the Conference.

Mr. John Agnew, of Alberton, one of the large lobster packers in the western end of the Island, and interested in other lines of the fisheries as well, emphasized strongly the desirability of the establishment of curing stations and cold storage plants at various points along our coast, where instruction could be given in the latest methods of putting up fish. It was strange, but true, he pointed out, that fishermen from other provinces, came into our waters, caught the fish, and sent them back cured, for consumption in the Island.

The shortage of help, owing to many of the fishermen enlisting for the war, was dwelt upon by several speakers, and it was shown that there were openings here for experienced fishermen from abroad, to come and settle. Conditions should first be readjusted, however, that fishing could be carried on, almost all the year round, so that the period of enforced idleness would be reduced to a minimum length. Mr. Tidmarsh took the ground that the solution of the problem lay mainly with private individuals or companies with capital. These could bring out the fishermen to this country, provide comfortable houses for them, and look after them until they became accustomed to our conditions. About thirty years ago, he had brought out 125 skilled men from the Old Country. He put one of these men in each boat, together with a young, energetic Islander, the latter serving as an apprentice as it were, with the result that for the next ten years, there was no necessity of bringing in men from abroad. At present, however, this necessity is upon us.

When the car ferry service is established between the Island and the mainland, a great stimulus will be given to the fresh fish trade. This fish could be put in a refrigerator car, at any station on the Island, and the car taken right through, say, to Boston, without its contents being disturbed. This service will not be possible till the narrow gauge of our railroad is standardized. The new car ferry steamer, costing about $750,000, has been running between Pictou and Charlottetown all winter, and next season, it is expected, that the piers at Carleton Head, P.E.I., and Cape Tormentine, N.B., will be ready, so that the boat can ply on this route, for which she was built.

The transportation question, in its relation to the fisheries, came in for considerable discussion at the Conference, and the high express rates on fresh mackerel, were severely criticized by H. D. McEwen, of Monell. The need of establishing a motor truck service, between Rustico, (one of the most important fishing centres on the Island), and the nearest railway station, Hunter River, about 10 miles distant, was also touched on by several speakers.

Mr. Tidmarsh told the Conference that the Portland Packing Company, for the past two years, had been engaged in the boneless cod business, a new one on the Island. The first year they handled about a quarter of a million pounds, and last year double the quantity. They had to meet the competition of old established brands, and the venture was not so profitable as was desired, but it takes time to get new brands established.

DIGBY, N.S.

(Special Correspondence.)

The weather during the month of March, in this vicinity, has been of the worst description. From the beginning of the month a succession of blizzards brought back wintry conditions. The fishing fleet have made a poor winter of it, owing to the continued bad weather.

At the opening of the Lenten Season the Maritime Fish Corporation found themselves without a pound of fish, and up till April 3rd only received a few small lots, shipped from Yarmouth or ex the schooner, Dorothy G. Snow, which arrived in with 50,000 pounds of haddock on March 11th.

The schooner Dorothy M. Smart, while lying to under a foresáil in a heavy easterly gale on Brown's Bank, on March 4th, was struck by a sea and hove down until her masts were level with the water. She soon righted, however, and in coming back to an even keel again lost the lee nest of five dories. The schooner Dorothy G. Snow lost a brand new foresail—it being blown out of the bolt ropes. The other Digby offshore schooners Lila G. Boutilier and Albert J. Lutz, took the breeze in harbor.

The fishermen have had a hard time of it this winter in offshore fishing—the weather giving them absolutely no chance to make a dip. With the opening of April, however, the weather eased up, and the schooners Dorothy G. Snow and Albert J. Lutz brought in trips of 100,000 pounds apiece on April 3rd.

By this time last year the boat fishermen had their boats painted, and in the water, and in many cases some of them were fishing. It is only this week that some of the boat fishermen are making a start on getting their craft prepared for the summer season's fishing.

Mr. F. W. Wallace, Editor of the Canadian Fisherman, made a trip to Brown's Bank on the schooner Dorothy M. Smart, during March, and returned home to Montreal via Shelburne, Yarmouth and Digby on March 28th.

Owing to the bad weather there has been very little doing in the fishing industry in this place, and nothing much to report.

LUNENBURG, N.S.

(Special Correspondence.)

With March winds raging and ice and hail cutting the face like a whip-lash, the outfitting of the fleet is being pushed rapidly ahead. Fully one-quarter of the vessels have hauled in to the wharves, and despite the leonine elements, the fishermen shivering in the bitter blasts are endeavoring to get their schooners overhauled and ready for the spring sailing.

One busy fish firm states that the 21st will probably see the big flitting, and there is general dissatisfaction among the merchants that the captains are choosing to fare forth in the teeth of the worst winter weather that has obtained here for years.

True, the fleet sailed much earlier last year, but there were no such storms or at least no such succession of storms as have pounded the Nova Scotia coast during the past six or eight weeks, and no one can see that the men would lose much by waiting at least until March showed a little of its lamb-like face. At the very least calculation, loss of gear and dories, must necessarily follow facing these blizzards, with always the fear of loss of life. The Straits are a solid block of ice, and the drift ice will be much later than usual this year owing to the intense cold.

The tribute of heroism must be paid to any man who willingly ships at this season. Cold, which freezes their very marrow, raging winds, and seas, icebergs and fog, what a combination to go up against! And when the fish are caught after battling with these terrors in a cockle shell of a dory, they will be frozen as stiff as cleaning rods, when flung on the deck for dressing.

No wonder the captain of a tramp steamer patrolling a mine infested region last fall, with a crew who were frightened out of their wits, used to exclaim, "What would I give for a bunch of those Nova Scotia trawlers, who fear nothing." and that about lets them out, they really know no fear.

The number of vessels to go out on the first trip will be smaller this year than formerly, as several of them have been sold, mostly to Newfoundland buyers, who are offering marvellous prices for freighters, as may be seen in the figure paid for the schooner Viola May, which was a cool eleven thousand. The schooners Ponhook, Lottie May and H. H. Kitchener have also brought good prices, as also the famous tern schooner, the W. N. Zwicker, now on passage to Buenos Ayres. She has been purchased by the Windrush Lumber Company, Limited, of that city, who will assume control of her on her arrival. Another reason for the diminishing of the fleet is, that freights are up to such a fancy figure that the long-abandoned trade of merchantmen to the West Indies has been revived, and the vessels are earning such good money that it is likely they will continue doing so as long as existing conditions last.

There will be several additions to the fleet of W. C. Smith and Company, notably the very handsome schooner under construction at Ernst's yard at Mahone, for Captain Artemas Schnare, which gives promise of being one of the finest. She will be 120 feet over all, and her name will be the Lucile M. Schnare. Another tern schooner of excellent lines is being built for the same firm at Liverpool, to be delivered in July. Her dimensions are 117 ft. keel, 33 ft. beam, and 11 ft. hold. Smith and Rhuland, the builders here, are rushed to death with orders, and have just completed a clipper for hand lining, to be sailed by Captain Wilson Walters, of LaHave; they also have two others on the stocks, one for Captain Lemuel Knock, and the other for Captain Clarence Myra.

James S. Gardner, of Liverpool, is building a tern schooner to be fitted with a 9 h.p. hoisting engine, and other modern equipment, for Robin, Jones and Whitman.

The Marine Railway has had hard luck during the past two months, the intense cold and ice preventing the schooners from hauling in to the cradles for their annual overhauling. Usually at this season the vessels were crowding each other waiting their turns to go "on the slip," but until a very short time ago absolute quiet reigned in that vicinity, with a consequent loss of money to the stockholders. Things are looking up a bit now that the ice has gone, and at present there is a prospect of a few busy weeks. The tern schooner Eliza Scribner, Captain Pace, was towed in here on the 13th inst., by the steam tug Mascot. The gale of March 4th, the famous Saturday blizzard that will long be remembered on this coast, caught her off Cape Sable as she was on passage lumber laden from Sherbrooke for Bridgeport, Conn., via LaHave, and she suffered heavy damage, losing motor boat, foresail, mailsail, staysail, foreboom and gaff, and also leaking to the extent of a five foot depth of water in her hold. She will repair here.

The freighters that are on passage or have just arrived are the schooners Lloyd George, Himmelman, arrived at Ponce on the 15th inst.; the Caranzas Lohnes, which left Turks Island on the 9th inst., the Gladys and Lilian, in port on the 14th inst., with salt for Robin, Jones and Whitman, the Lauretta Frances, Sponagle, which arrived on the 14th inst. from Halifax, where she discharged a cargo of salt from Baliza, Spain, for the Smith Company, Limited; the Waegwoltic, Creaser, which sailed from Halifax on the 10th inst., with a cargo of fish for Pernambuco; the Benjamin C. Smith, Corkum, chartered by Zwicker and Company, to load for Porto Rico; the Wautauga, Backman, ready to sail for Ponce, for Adams & Knickle; the R. L. Borden, Meisner, due from Cadiz, with salt for Robin, Jones and Whitman; the Phyllis Westhaver, Tanner, 40 days out from Cadiz with salt for Adams & Knickle; the Ida M. Zinck, Zinck, to sail shortly for Harbor Preston to load fish for Oporto; the Mayola, Wentzell, and the Leta J. Schwartz, Schwartz, both in from Cadiz with salt for Zwicker and Company; the David C. Ritcey, Ritcey, on passage from Turks Island with salt for W. C. Smith and Company; the Eva C., Gerhardt, on passage from Barbados to Portland, with molasses; the Robert J. Dale, Lohnes, on passage from Barbados to Brazil, and the Mark Tobin, Richard, on passage from Barbados to Halifax, with a cargo of molasses.

The vessels at present outfitting at the wharves of W. C. Smith & Company, are: the J. D. Hazen, Captain Himmelman; Hawanee, Cook; Clintonia, Mack; Frances Smith, Mossman; M. M. Gardner, Backman; H. H. MacIntosh, Weinacht; Doris V. Myra, Myra; W. T. White, Knock; Revenue, Zinck; Delawana, Cook; W. C. Smith, Selig; James Burton Cook, Cook; Benevolence, Corkum, and the Jennie E. Ritcey, Ritcey.

And what of the product of last year's catch, who has benefitted by the banner catch of last year, merchant or fisherman? Candor compels the answer that the fisherman beats the exporter in this game. It is a reversal of the usual order of things it is true, but facts are stubborn things, and it is incontrovertible that fish which were purchased some time ago for $7 per quintal to-day are not bringing over $6.50. One of the chief reasons for this sad state of affairs is that a large portion of the fish shipped were not up to the market's standard. The demand was so great that the buyers took delivery of improperly cured fish, and now they are paying the penalty, and this product must be got rid of before the warm weather sets in. The markets moreover, owing to the increased cost of transportation, which is soaring sky-high daily, show no immediate sign of improvement. The situation in Newfoundland is unparalleled. The merchants are caught with heavy stocks, and practically no means of transportation, as the tramp steamers have long ago left for more lucrative quarters. Possibly were they in Newfoundland now they could command their own figures, but the tempting offers of big freights elsewhere caused them to desert their own coast, and now the merchants are offering fabulous prices for Lunenburg schooners, one owner being offered almost four thousand dollars above the price paid for a vessel he had purchased some months ago. Agents have been sent out by the Newfoundland shippers to sea ports in Canada and the United States to buy between forty and fifty sailing vessels, as it is absolutely necessary to dispose of these fish on hand before any more serious market depression. The export trade will be principally to Mediterranean ports, with return cargoes of salt. The unhappy state of affairs obtaining in Newfoundland is, of course, largely due to the war, as many of the steamers were requisitioned for transport and ice breaking service in European waters. The fishermen, therefore, is the one who profits in the fishing industry. He will not sell unless the price suits him, and he holds out for his price until he gets it, and the exporter practically has to give it to him, then when the market fluctuates, the fisherman has his bank account augmented, and the merchant worries over the finance end of it. This stunt is pulled off practically every year, and from a purely sentimental side of the question, my sympathies are with the fisherman, who faces exposure and peril every day of his life, and reaps his reward at the close of a successful season. "But, that's not business," some opoe will object, perhaps not. At any rate, the Lunenburg merchants to-day do not appear to be suffering from heavy losses. They are a prosperous, contented looking lot, with apparently little idea of closing their doors, because the markets "are in bad," and they seem perfectly satisfied with the fact that the fishermen are making money and the town's prosperity is increasing annually.

NEWFOUNDLAND.

(From Our Own Correspondent)

The CANADIAN FISHERMAN is fast becoming a popular magazine in the Colony; and many, to whom its existence was unknown a few months ago, are making inquiries about it. The "Mail and Advocate," is making it extensively known; many of the C. F.'s articles are reproduced in its columns and read eagerly by our fishermen. This can have but one effect— the awakening of our toilers of the sea to the ever increasing importance of the fishing industry. The fact is that more fishery information has been circulated within the last nine months than ever before in the the Colony. The local correspondence supplied to the CANADIAN FISHERMAN is in fact a detailed report of our monthly fishery and marine operations.

The Tonnage Problem.

There was recently held at the Board of Trade rooms a very representative meeting business people and manufacturers to discuss the shortage of tonnage which is now a very alarming feature here. Whilst it is not true, as has been stated by some Canadian and American papers, that we are "threatened with starvation," the situation, both as regards the present and the future is quite serious. The Hon. John Harvey, one of our most progressive and best informed business men, discussed the tonnage shortage in a very lucid and practical manner; and his views are always worthy of consideration. Mr. Harvey is largely interested in the fishing industry, and is the head of a firm which has large shipping interests—being the local Agents of the Red Cross Line.

He pointed out that there was no commercial consideration of more general seriousness, or of greater importance than the tonnage problem, and proved that it had necessarily resulted in a very large increase in freight rates. This, he said, was due to several causes: interment, loss from submarines, normal attrition, etc. He estimated that 6,200,000 tons of German shipping has been interned, of which about 1,000,000 tons captured by the Allies had been released for work. Another million tons had been sunk, and a million and a-half lost by natural attrition.

In addition, the entire Russian Mercantile Marine in the Baltic and Black Sea were locked up. When the War broke out it was estimated that 24,500 steamers were sailing the seas, with an aggregate tonnage of 45,000,000 tons. Of this tonnage only a little more than 75 per cent was available; but on acount of the great demand for transports and other military purposes a much smaller proportion was free to carry on the world's commerce. Another drawback was the cessation of building. The natural result was a sharp advance in freight rates.

Illustrating the advances as far as local interests were affected, he showed that while in 1913 a 4-qtl. cask of fish shipped from St. John's to Naples cost $1.80, in 1914 it had jumped to $3.50; in September 1915 to $5.50; in November, to $6.00; while at the present time it was quoted at $9.00. These rates, however, only applied to the Mediterranean trade. So far as trade with Great Britain was concerned and trade with the United States, the advances were not so severe, as the lines running to Great Britain and the United States had not made any objectionable increases.

Mr. Harvey severely criticized Government interference with shipping, and claimed that it had a most disturbing effect. He insisted that a system of subsidizing would be better. He said that the situation might be relieved somewhat by the larger use of sailing vessels; and to this end he suggested the building up of a fleet of carriers with auxiliary motors.

Premier Morris followed Mr. Harvey, and he referred particularly to the dwindling of locally-owned vessels which had taken place within the last thirty or forty years. This had resulted, he contended, in the control of shipping rates passing into the hands of outsiders. In olden days when we had had a large mercantile marine, merchants could ship fish when and where they wished; and the expenses came low as the ships brought back return cargoes in the line of salt and other merchandise. He also referred to the salt problem, and declared it to be a very serious one, as the effect of a shortage on the fishermen would be disastrous.

He was hopeful, however, that the recent activity in procuring and building new auxiliary vessels would help to solve our tonnage problem. He viewed with alarm the increase of freight rates, as the increases would have ruinous effects on our fishing industry. He promised the hearty co-operaion of the Government in any scheme that would tend to reduce the rates and provide a better means of transportation for our products. Mr. Munn, who is a large exporter and importer, viewed the situation as very serious; and unless some remedy could be devised, both our exports and imports would be seriously affected. This would relate especially to our flour importations from Canada.

The result of the Board of Trade deliberations was the formation of a committee of those "fully cognizant of matters relating to shipping," who will at an early date lay its views before the Government.

Shipbuilding.

There is great activity in the northern bays in the building of boats, skiffs, and motor-craft for fishing purposes; and an agitation is on foot to launch out again into the building of craft suitable for the foreign trade. Years ago, we built all our foreign going craft; but shipbuilding declined; and of late we are buying vessels in Nova Scotia and in the United States. From several merchants and fishing masters I have sought the reason of this. They are almost unanimous in their contention that we can buy more cheaply than we can build. They declare that our shipwrights are unable to turn out a suitable vessel on time, and the expense fo local building is much greater than building abroad. Mr. John E. Lake, of Fortune, has lately been contributing a series of articles on shipbuilding; but, it would seem that Mr. Lake is not taken seriously by our shipowners or shipmasters. Mr. Lake has turned out some splendid work at the Fortune Dock; but he does not seem to be able to convince our people that he can compete successfully with the builders of Shelburne and other sections of Nova Scotia where shipbuilding is carried on successfully and profitably. As an illustration of Mr. Lake's views, we quote the following from a recent article contributed by him to the Daily News:

"Ours is a fishing country, nine-tenths of whose inhabitants are depending on salt for the principal industry, and there is no vessel in the country to send for it. Can any merchant in the trade overlook such a crisis? They may get floating rafts to ship fish by, while insurance agents take risks on such, but are the owners much concerned if either vessel, cargo, or crew turns up? . . . What has caused so much larger percentage of drowning from the vessels in our foreign trade the last ten or fifteen years? If careful statistics were being kept and shown, we fear it would make a poor showing. How long is this to continue? Who is to wake up to the general interest for a supply of local built ships — built to die natural deaths as the woods die, and not to be drowned or fired as so many are to save the lives of the crews?

"Our country grows plenty of good timber, the life of such, if seasoned, can be depended on for twenty or more years. Our country has plenty of good mechanics. Who is to find the means of organizing institutions of labor? Burin and Fortune Districts pack up and send out of the colony forty to sixty thousand dollars annually to increase their fishing and foreign fleet. What does this mean? Is not the country the poorer for it? Surely it is; and ouor provincial neighbors are the richer. Who is to blame? Why not profit by the experience of others, and get modern draftsmen and modern models to educate our builders to turn out vessels to suit the eye and suit the taste?

"The matter is so important, and our Colony is growing the poorer, the longer the shipbuilding industry is neglected. Surely the time is at hand when capitalists will see it. Any properly equipped shipyard shoul dturn out four vessels from 100 to 200 tons every year, at least."

It may be said that Mr. Lake has been trying to organize a company with a capital of $100,000 to launch out into the shipbuilding industry; but our capitalists do not seem to have much interest in this departure. Mr. Lake is the proprietor of saw-mills and other lumbering equipments; and he is of course, very optimistic about our "possibilities." He seems to have little faith in the solidity of the foreign-built vessel.

We have just read the opinion of another gentleman who is directly interested in shipping — one who is equally as enthusiastic as Mr. Lake, and seemingly very much more practical. This is Mr. W. F. Coaker, the President of the Fishermen's Union, who has just returned from a visit to Canada and the United States — made in the interest of the Union. Mr. Coaker thus describes a a visit to Shelburne, N.S. His visit, we understand was in connection with a new shipping departure in the interests of the Union Export Company, and the building up of the new "Northern Capital at Catalina." Mr. Coaker writes:

"We visited three shipyards at Shelburne and inspected three vessels being built for the Newfoundland trade; one for Harris, one for Buffet, one for Patten and Forsey, of Grand Bank. Harris's vessel is about 180 tons, and will be used in the Brazil trade. This is a splendid vessel, well built, of the best available timber. She is fastened as strong as it is possible to do. Winslow McKay is the builder. The same yard is about to build another for Penney, of Ramea, of 150 tons, for the Oporto trade. The McGill yard is just about ready to launch a fishing vessel of about 110 tons for Buffet, which is the best-looking schooner I have ever seen. We examined her thoroughly and do not believe it possible to build a vessel stronger or more suitable. All these vessels will cost about $70 per ton fitted, which is a moderate cost for such workmanship. The vessels are planked with oak and birch, birch below, and oak topsides. Spars are Oregon pine, keels, stems, and stern posts of oak. The fastening is superior to even our Newfoundland survey conditions for bounty."

An Industrial Programme.

We believe that Mr. Coaker's visit will bring immediate results; and shipbuilding will form one of the many activities outlined for Catalina. This is to be one of the most progressive seaports in the Colony, if one may judge from the plans outlined recently by the President of the F. P. U.

Catalina is admirably situated for the carrying out of Mr. Coaker's plans. It is an excellent harbor, lying at the mouth of Trinity Bay, and is one of the best ports in the Island. It is open practically the year round, and it is the great rendezvous for northern shipping. It is a perfect mill-pond (in the North-East Arm where the F. P. U. has secured a large tract) and is moreover, a large centre of trade. It has railway communication with St. John's and all the northern ports served by the Reid Newfoundland Railway. It has an industrial population, and is a very important fishing centre.

The F. P. U. will establish here a marine railway, a shipyard, fertilizer plants, and it is destined to become a very important centre in the fish export-trade. We understand that there will be also a boneless fish plant, and other up-to-date fishery activities in short order. The new developments in this section will afford permanent employment to a large number of operatives; and will, in addition be, a supplying centre for fishery requisites. Business can be conducted here more cheaply than in the city; and the possibilities of expansion are greater.

Another Big Project.

The Mail and Advocate informs us that the Newfoundland-American Packing Company, of which a young Newfoundlander is, we understand, the Manager here, has decided to locate the first of its series of packing-houses at Bay Bulls (some fifteen miles from St. John's), and that operations will start shortly. The Company plans to establish a cold storage plant, drying plant, oil factory, and a fertilizer plant with a capacity of ten tons per day. The Mail and Advocate states further that the Company has worked out an economic system of collecting fish offal, thus commercializing a material which for years past has been going to waste. The collecting of this offal will considerably increase the earning power of the fishermen along this coast. The proposed cold storage plant, which will be up-to-date in every particular, will be able to furnish bait to our Bank fishermen all the year round, thus supplying a long-felt want. It is the Company's intention to erect other packing houses on the Western and Northern Coasts as soon as the Bay Bulls plant is in operation. The plant at Bay Bulls will be operated by hydraulic power.

It is to be hoped that this venture will be successful. We have had so many fiascoes in this line in the past, that we shall watch the new departure with considerable interest. Tens of thoousands of dollars have been sunk in similar ventures in this colony; but the failures were possibly due to lack of competent management, or to the unsolved theories of the promoters. There should be no difficulty in making a financial success of such enterprises. We have proof of this in the development of similar industries in the Province of Nova Scotia and along the Gaspe coast. We are quite enthusiastic about the development of our fishing industry; but we are not disposed "to count the chickens before they are hatched." This has been the case so often that we discount much of the prospective results. We wish the promoters success; and hope their venture will prove a commercial and an industrial success. In the meantime, we would suggest to them as a trade device the old saw: Festina lente.

A Missed Opportunity.

A Trinity Enterprise in a recent issue deplores the missed opportunity of the Trinity Bight fishermen who returned from Labrador last fall with small fares and say: "Had these skippers taken our advice and gone to Green Bay or White Bay herring-catching during the fall, they would most probably have been home by the middle of December with good fares of herring put up according to the Scotch method of cure. These herring are now quoted at St. John's as being worth from 9 too $10 per barrel.

"If foreigners can see this golden opportunity presenting itself in the herring fishery of Notre Dame Bay and White Bay, why are our schooner owners blind to this industry and content with the Labrador cod-fishery alone which lasts only four months; for the remaining eight months their vessels do not turn them in $50.

"The short Labrador fishery does not present sufficient inducement to our planters to build vessels, after their old ones are worn out. If we do not get out of the old rut, and wake up to the new industries which are presenting themselves, in ten years' time we shall not have ten vessels in Trinity Bight.

"This, however, does not apply to Trinity Bight alone, for we believe that Conception Bay has not five fishing vessels to-day to the fifty it had twenty-five years ago.

This is perfectly true; and the statement applies to Carbonear, Harbor Grace, Bay Roberts, Brigus, and Harbor Main. The writer remembers when from Harbor Grace and Carbonear alone there were two hundred vessels engaged in the fishery. At the present time, you may count them on your fingers. The fact is that even the independent planter class has ceased to exist. During the past season the writer visited a certain section of the Labrador coast where just twenty years ago, there were not less than ten vessels moored for the fishing season, owned by planters who had rooms there. The only vestige of the oold regime was found in a solitary fisherman (son of one of the old planters) fishing "single - handed" in a borrowed punt. His catch for the season was ten quintals of fish. His father counted the voyage in five figures. This instance is, unfortunately, not an isolated one. The cause? Ah! "There's the rub." The younger generation did not have the stamina to follow in the footsteps of the old folks, and, in many cases, the too frequent patronage of the "blind pig" ended in loss of both credit and character.

The Fish Markets.

The Trade Review states that there never was less activity in recent high-price years amongst the merchants in regard to fish. Rates are quoted from $7.30 to $7.50 still for merchantable, but practically none has changed hands recently. Labrador, too, is sluggish at $5.50. This is not owing to lack of confidence in the price in foreign markets, but rather to the shortage of bottoms for export. Those who own vessels are steadily getting out their own stocks to Brazil and Europe; but those dependent on outside freights are seriously handicapped.

The Spanish markets do not offer any great inducement to shippers; neither do the Italian. The Greek market is the only satisfactory one at the moment; and it is still taking all the fish that comes along. The Greek buyers are putting up the money promptly. Were it not for this market, our fish exporters would be very badly hit this season. The prices are good in Piraeus, and there is no indication of a slump in the market.

The Oporto market seems to have a large quantity on hand; and it is feared that the recent developments in the German-Portuguese difficulties will have a bad effect on our fish trade. For the week ended February 26th, the stocks were:

	Quintals.
Newfoundland	62,215
Consumption	2,820
Norwegian	410
Consumption	190

The Lofoten Islands fishery will certainly have all effect upon our exports to Portugal; but we have not yet learned anything of a definite nature regarding its progress.

Local Market Report.

Codfish, large, medium, and small, merchantable	$7.20	to	$7.30
Codfish, large, medium, and small, Madeira	$6.00	to	$6.50
Labrador, soft			$5.30
Labrador, shore cured	$6.50	to	$6.70
Large and small West India	$5.00	to	$3.50
Haddock			$3.50
Herring Scotch pack, per brl.			$10.00
Herring Ordinary	$4.00	to	$4.20
Salmon, No. 1, per trc.			$16.00
Salmon, small, per trc.			$12.00
Lobsters, per case, No. 1, pound tins			$14.00

Cod Oil.

There is very little cod oil in the market; and only two holders have any quantity, the largest hoolder being the Union Export Company. They are holding out for $160.00 per tun. The probabilities are that they will get it, as the stocks in the American markets are getting low and no trans-Atlantic oil is in sight. Possibly, if the Norwegian fishery is unusually large, the American buyers may secure a part of the output. But with the ever-increasing demand from Germany, it is, however, unlikely that any quantity of Norwegian oil will cross the herring pond. Refined oil is quoted at $1.25 to $1.30.

Herring.

The herring fishery is still being prosecuted in a small way both on the West Coast and in the Northern Bays; but the recent spell of heavy weather — the worst experienced in many years will likely put an end to the fishery for some time, at least. The fishermen fared exceptionally well, both as regards the sale of ordinary pickled and Scotch cure.

Practically all the Scotch cured herring have been shipped, to New York chiefly; and for No. 1 quality the shippers received $14; but we have been informed that in some instances the price paid was as low as $7. This indicates that some inferior herring must have been packed. This bears out what we have frequently written regarding our pack. Buyers, especially in the American market, are very particular about the grade of goods offered; but people do not seem to realize this. We are pleased to know, however, that some excellent herring went from certain sections, especially from the East Coast; and Mr. J. F. Murphy, who put up a large consignment at Little Bay Islands informs us that his pack was found to be in A1 condition. He went to New York with his shipment, and placed it to advantage. He says that the New York buyers tried to put down the price of certain shipments, as some of the herrings were of inferior quality. We cannot afford to continue this sort of business, as we shall meet disappointment in the future. We think the advice given by Mr. Cowie in his address to the C. F. A. at its annual meeting held recently in Montreal should be widely circulated here, so that we may not take any further risks. Scotch pack may meet the fate of the Labrador herring, should we persist in putting up an inferior article.

Our Winter Codfishery.

From present indications it looks as if our Western shore winter fishery is going to be a short one. Reports from the fishing centres are gloomy; and as we have an unusually large fleet of bankers and smaller craft on the grounds, this spells disaster for some of the outfitters. There are some forty schooners fishing in addition to the small craft that outfit from Rose Blanche, Burgeo, and Ramea. At this date last year some vessels had secured large fares, from 500 to 700 quintals. The weather has been very stormy; and there is likely to be a shortage of bait, as many of our vessels took only small baitings. Some of the high liners have not yet secured 100 qtls.; and unless fish strike in more plentifully they will not pay expenses.

In addition to the eastern fleet the following craft are fishing from Burgeo and Ramea:

Nellie Moulton, 14 tons; Belle of Burgeo, 14; Anito C., 10; Globe, 10; Lelia, 14; Vandella, 14; Margaret T., 12; Protector, 17; Isabelle, 12; Nahada, 18; Hazel Y., 14; Lucid, 14; Pretty Mary, 14; S.S. Annie, 16.

Unregistered boats: Two Brothers, Edna W., Meamie, Dove, Morning Star.

The tonnage of the above vessels is 941 tons, and the crews aggregate 214 men.

Seal Fishery.

Our outfit for the sealing voyage is the smallest on record. The fleet this season will consist of the following ships: Florizel, 1,980 tons; Samuel Blandford (formerly Newfoundland), 568; Eagle, 418; Erik, 461; Viking, 276; Diana, 290; Terra Nova, 450; Bloodhound, 314; Neptune, 465; Ranger, 253 tons. In addition to our local ships the Sable I and Seal of Halifax (owned by Farquhar and Co.) will also prosecute the seal fishery. Not more than 1,500 men will get berths; so the shortage is lamentable. Nearly all the ships will go to the "front," excepting Viking, Ranger, and Sable I.—all three being commanded by members of the same family, the Bartletts of Brigus. Capt. William, Sr., goes in the Viking; Capt. William, Jr., in the

Ranger; and the famous Capt. Bob, of Arctic exploration fame, will command the Sable I. They are all experienced seal hunters; and we wish them a bumper voyage.

Fortunately, many of the men who would otherwise be engaged in the seal fishery have been able to secure employment in cutting pit-props for the English market. It is said that our cut of props this season will exceed one million cords. This will be the means of putting a lot of money in circulation; so the short outfit for the sealing voyage will not be so severely felt as we anticipated some months ago.

Fish Exports for January.

From Outports:

To Europe	21,497 qtls. dry fish.
To United States	1,250 qtls. pickled fish.
To Canada	2,180 qtls. pickled fish.

Also: 28,014½ brls. herring; 10 casks Cod oil.

From St. John's:

	Qtls. dry fish.
To Brazil	26,971
To Europe	22,385
To Great Britain	7,413
To West Indies	2,913
To United States	1,743
To Canada	24

Also:

320 tuns Cod Oil.
3,788 brls Herring.
43½ tuns Cod Liver Oil.
59 brls Salmon.
9 trcs. Salmon.
1 brl. Trout.
16 brls. Turbot.
930½ cases Lobsters.
10 cases Squid.
837 Seal skins.

Comparative statement fish exports:

1916 .. .. 82,946 qtls. dry fish; 3,430 qtls. pickled do.
1915 .. ..103,557 qtls. dry fish; 11,635 qtls. pickled do.

The shortage is due entirel yto lack of fishing facilities.

Scarcity of Halibut.

Halibut has been unusually scarce this season. Very little has been offered for sale in the St. John's markets. We have not learned the cause; whether the shortage is due to the unusually stormy weather or to scarcity of fish on the grounds we have not been able to ascertain. Some local dealers have been importing halibut from Halifax to meet the demand for halibut here. This seems rather singular; as much of the imported article is really British Columbia produce.

Commenting on this shortage, the Trade Review remarks: "This speaks well for Canadian enterprise and badly for ourselves. The strange part of it is that the halibut received here from this source can be sold as cheaply as what our fish dealers have been accustomed to get from the South Coast."

The Editor presumably has never had experience on the West Coast. The fishermen there really get small prices for thir halibut; the writer has on more than one occasion bought halibut from 4 to 5 cents per lb.; and presumably, the increased price is due to either excessive freights, or what is more probable, the proclivity of the St. John's grocer to stiffen the price in the market. There is still another anomaly in our fish trade; and it seems inexplicable. Purchasers seem willing to pay more for "imported goods" than for local products. This is true in nearly every department of our trade.

Smelt Fishery.

Owing to the unsatisfactory system prevailing in this country, it is really impossible to get satisfactory statistics regarding our smaller, or, in fact, any fishing industry. Hence, we are obliged to obtain information as best we can. We have a very promising industry in smelts on the West Coast; but we do not seem to realize how valuable it might become under proper management. There is a constant demand for smelts in the Canadian market; and recent Canadian Bulletins set down the catch for January at 23,801 cwts., valued at $139,440. We have never seen smelts advertised in our local market. There is no earthly reason why we should not develop this fishery; and were our people to embark in it more extensively, it should prove an important adjunct to our fish trade. Smelts are abundant in the Western District of St. George's; and especially around the Peninsula of Port au Port. We understand that a progressive clergyman in that section is now endeavoring to interest fish dealers in the smelt industry. This is a very commendable move; and we hope he will meet with the success he deserves. It is a pity that our public men, clergymen particularly, are not more alive to the possibilities of their respective spheres of labor. Much might be accomplished by their efforts to educate their people to the latent possibilities of their districts. We notice that in the Old Country clergymen are active members of Fishery Associations; and there is no reason why we should not have the Reverend gentlemen interest themselves here. They are, as a rule, the best educated and best informed men in their respective sections, and they should be encouraged in their efforts to help those amongst whom they labor.

Shipping Notes.

The Messrs. Lake of Fortune have recently purchased the schooner Alice from a Boston firm. The Alice is a splendid vessel, of the knockabout class, of 105 tons, and is five years old. The purchase was effected by Captain Walter Kennedy who will command her at the Bank fishery. She is a fast sailer, and will be a valuable addition to our banking fleet. Captain Kennedy is one of our best known banking skippers; and we hope he will have a successful season in the Alice.

A local firm has purchased the Canadian tern schooner, General Lawrie, a vessel of 238 tons, for use in the foreign trade. This schooner has been engaged in the Newfoundland-Brazil trade for some years. She is now on her way from the West Indies to New York, and on arrival at the latter port will be taken over by a local captain and load freight for St. John's. This is another valuable addition to our mercantile marine.

F. P. U. Activities.

Mr. W. F. Coaker, President of the Fishermen's Union has just returned to St. John's after a business trip to Canada and the United States. Whilst abroad he finalized several transactions which will have farreaching results for the fishing industry generally. He purchased, in Gloucester, Mass., two splendid oak-built schooners, the "Paragon," of 115 tons, and the "Hettie A. Heckman," of 105 tons. The Paragon will be fitted with a 65 h.p. Bolinder engine and will be used in the foreign trade of the Union Export Company, whilst the Heckman will be used as a carrier for general merchandise.

He also arranged for the machinery of the new shipbuilding plant at Catalina. This plant will be erected by the manager of a Nova Scotia plant who will remain with the Union Export Company for a year. The services of an engineer have been secured for the construction of a Marine Dock. This will have a 500 ton equipment with two cradles 170 feet in length.

Arrangements have also been made for the installation of an up-to-date Electric Plant, and Mr. Coaker says that the settlements and towns between Trinity and Bonavista will be provided with electric power at one-third the amount that the citizens of St. John's are now paying for such service.

He also states that the Union Export Company will operate a Branch in New York just as soon as the Company is ready to export large quantities of foil, boneless fish, herring and other produce which can be marketed in the United States. An agent will also be kept in Boston.

He has secured an opening for a large quantity of boneless fish in the United States just as soon as the U. E. Co. is in a position to supply it. He says that every quintal of fish that can be taken from the water by the North Shore fishermen will be required by the company for the American markets.

The membership of the F. P. U. is now nearing the 30,000 mark. Its growth has been phenomenal and it has been the means of boosting our fishery industry as it never was before. The financial status of the Union is excellent. A circular recently issued states:

"The new issue of shares in the Fishermen's Union Trading Company, Limited, are now offered to the members of the F. P. U. These shares are $10 each; and the new capital is to be used to extend the Company's business. A dividend of 10 per cent has been declared for 1915. Thirty-eight per cent dividends have been paid during the four years the Company has been in operation. The Company has a Reserve fund equal to 40 per cent of its capital, and if it was possible to place the Trading Company's stock on the market, it would be worth $15 a share."

ST. JOHN'S, N.F.

(From Our Special Correspondent.)

Codfish.

Since the beginning of the New Year, up to March 10th, 200,000 quintals of codfish were exported from St. John's to foreign countries, in addition to this, between fifteen and twenty thousand quintals were exported from the outports. There is very little buying going on between merchant and fisherman, and matters will remain so until navigation opens up North, when considerable quantities of fish still held by many fishermen will be shipped to St. John's.

The price for merchantable shore catch is $7.40 per quintal and Labrador (soft cure) is quoted at $5.00 per quintal. Of the amount of codfish shipped abroad since the beginning of the New Year, over half of same has gone to Brazil, Greece being the next largest buyer, and England the next. The markets of Spain, Portugal and Italy are very weak.

The Newfoundland Board of Trade received the following cable letter from Oporto very recently, which is an index of the fish market throughout Spain and Portugal:

"The market is much overstocked, the prices are declining and the demand is very poor. No further supplies should be sent here for months; otherwise a serious break in the prices may occur, as there is still a large quantity of Portuguese cure to come on the market. Owing to rumors of a Government loan, exchange is entirely disorganized, and is fluctuating considerably."

Winter Codfishery.

The Board of Trade have just received the accompanying report of the fishery between Channel and Port aux Basques: "The catch to date is 3,068 quintals with 300 for last week. Prospects are very good, and there is sufficient bait, but stormy weather and ice are hindering operations. For the time spent on the grounds, however, the results obtained are good. Eight boats and 26 dories and skiffs are engaged, but no traps are yet out. Eleven schooners have returned from the grounds with 700 quintals for two days' fishing. It is early yet to predict the result of this voyage, although operations were commenced some weeks in advance of former years, the results to date are not so good. Although fishermen report abundance of fish on the Banks, the weather has been exceptionally stormy, which considerably impeded operations.

Since the return of March considerable improvement in the weather has taken place, and with it a vast improvement in the fishery. Very little of this winter caught fish reached St. John's for exportation, the greater portion of same is cured in the district of Burgeo and Lapoile, and from there is exported direct—mostly to the Spanish and Portuguese markets; and during the early weeks of summer of late years a very large percentage of this voyage is shipped green to the United States.

Norwegian Fishery.

The accompanying figures were posted at the Board of Trade rooms yesterday:

March 6th, 1916.

Lofoden	2,100,000
All others	5,700,000
	7,800,000

March 9th, 1915.

Lofoden	4,500,000
All others	12,000,000
	16,500,000

In view of the above figures it looks as if the Norwegian fishery is going to be below the average, which means better prices for next season's Newfoundland fish. Of late years Norway has been a sharp competitor with Newfoundland in the Spanish and Portuguese markets, and it was only by a persistent effort of our merchants in sending the best grade fish to these markets, which has given Newfoundland fish the preference amongst these nations. It is not likely that the Norwegian catch will come into competition at all this year with the Newfoundland product, as it is generally known that all the available supply of fish and oil which Norway can supply has long ago been bought up by Germany.

Cod Oil.

The market is strong and healthy, but very little selling. The price is $150.00 per tun. Refined oil took an abnormal advance a few days ago—going from $1.40 to $1.70 per gallon. There is an unusual demand for this grade of oil, but there is very little in stock, what there is, is held by the merchants. Many of our people are preparing to go into the refining of cod oil next season. The price offering is the most enticing for many years, and with all the necessary and available facilities which the country affords, theer is every reason to hope for good results.

Winter Herring Fishery.

Shipped from Bonne Bay:	Shipped from Bay of Islands:
48,626 brls. Bulk Herring.	4,618 brls. Bulk Herring.
6,831 brls. Pickled Herring.	4,049 brls. Pickled Herring.
5,072 brls. Frozen Herring.	10,915 brls. Frozen Herring.
	80,111 in all.

53,244 brls. Bulk Herring, valued as taken from net	$119,799.00
10,880 brls. Pickled Herring valued as taken from net	48,960.00
15,987 brls. Frozen Herring, valued as taken from net	69,946.00
80,111	$238,705.00

The price of herring fluctuated considerably during the fall, but was not at any time less than $1.50 to over $2.50 per barrel for Bulk Herring; $2.25 was the average price paid for this class of herring as taken from the net. Frozen Herring averaged $1.50 per basket and Pickled Herring $4.50 per brl. with competition keen.

There were four hundred men, with 120 motor boats, 20 row boats and 840 nets engaged in the herring fishery at Bonne Bay. There were also, some sixty labourers employed by the packers on shore who received 20c. an hour continuously during the herring season.

The export of herring from Bonne Bay and Bay of Islands has been the largest since 1911, when the export was 85,666 brls. valued at $198,023.50. Although the quantity exported this season was 5,555 brls. less the value to our fishermen was $238,705. or $40,682. in advance of 1911.

The values stated are the values given to the fishermen for green herring. Those values do not represent the herring cured by the packers after the Scotch method. Some of them obtained as high as $10.00 per brl.

In Fortune and Placentia Bays the fishermen have done well this Winter in selling frozen herring to the Banking Fleet at $1.20 per hundred. All through the Winter the herring fishery is being carried on through the ice in Bonne Bay and Bay of Islands, and it is estimated that thirty thousand barrels will be caught in this way all of which will be Scotch cured.

Oporto Market.

The latest condition of the Oporto market received by cable on March 9th. by the Board of Trade is as follows:

	Past Week	Previous Week.
Stocks (Nfld.)	55,695 qtls.	58,690 qtls.
Consumption	3,583 "	3,525 "
Stock (Nor.)	117 "	410 "
Consumption	293 "	...... "

The Seal Fishery.

The Newfoundland Sealing Steamers sailed on March 10th. and 11th. to the icefields. Those prosecuting the voyage in the Gulf of St. Laurence sailed on March the 10th. from Channel—a sea port near Cape Ray, and those prosecuting the voyage on the North East Coast sailed from Wesleyville, a sea port in Bonavista Bay. The official date for sailing on the North East Coast is March 12th. for wooden steamers, but owing to that date falling on Sunday this year, the authorities permitted the ships to sail on Saturday the 11th. Only two steel ships sailing from St. John's are engaged in the fishery this season. The fleet this year consists of 12 ships of 10,170 tonnage carrying 2,038 men. The following is a list of the ships, their captains, and owners, etc.

Sailed to the North East Coast.

Name	Captain	Owner	Tonnage	Men
Florizel	A. Kean	Bowring Bros., Ltd.	3,080	270
Terra Nova	S. R. Winsor	Bowring Bros., Ltd.	764	200
Eagle	E. Bishop	Bowring Bros., Ltd.	677	180
Samuel Blanford	W. C. Winsor	Job Brothers & Co.	919	189
Neptune	Geo. Barbour	Job Brothers & Co.	684	189
Bloodhound	Geo. Whitely	Baine Johnston & Co.	542	166
Erik	N. Kean	James Baird, Ltd.	583	139
Sable Island	J. Kean	Farquhar & Co.	734	130
Gulf.				
Viking	W. Bartlett, sr.	Bowring Brothers, Ltd.	586	160
Ranger	W. Bartlett, jr.	Bowring Brothers, Ltd.	520	150
Diana	D. Martin	Jas. Baird, Ltd.	473	145
Seal	C. Murley	Farquhar & Co.	608	120

In addition to the above ships two Norwegian Steamers are sailing from Sydney, C.B. to the Gulf. Their sailing from that Port is a contravention of the Sealing Laws of the Country. The voyage has opened up with every prospect of being one of the most successful in the annals of the fishery. The prevailing winds and weather since March the 1st. are all that could be desired, so the Sealing Captains say, and they look forward with considerable assurance to a very quick return with bumper trips. This fishery takes less time than any of the other fisheries and no industry in the Colony gives such spirit and energy to our fishermen. Because of the wildness of the adventure filled with danger and risks innumerable— and the vast field of sport the seals hunt affords, — a trip to the ice fields is one every Newfoundland fisherman wishes to take. The voyage is one also of great commercial value to the Country.

It is quite possible that in the short space of one month three thousand seals, worth nearly one million dollars, will be brought into the country.

Newfoundland Minister of Marine and Fisheries.

The Minister of Marine and Fisheries Mr. A. W. Picott has recently returned home from an extended trip of several months absence to Canada and the United States where he was investigating the methods of the fisheries of the New England States and the Provinces of lower Canada. He also spent some time in looking into new designs and equipments recently inaugurated in some parts of the States light houses. It is Mr. Picott's opinion from experience gathered during his trip that our herring fishery will become the greatest asset of the Country. Mr. Picott says—The Scotch packed herring shipped to New York have taken the market well and are spoken highly of and mentioned that great possibilities were in store for the herring industry in Newfoundland if the producers gave plenty of care and attention to the packing, assorting, pickling and salting of the article. He says that the Gorton Pew Co. and Messrs. Cunningham and Thomson were making provision to carry on the herring fishery in Notre-Dame and White Bay, on a more extensive scale this year owing to the profitable results derived last season, and this ought to be advantageous to the fishermen around those bays.

The fishermen of Newfoundland are most fortunate in having such a man as Dr. Picott at the head of the Marine and Fisheries Dept. He is a practical self made man, thoroughly conversant with the sea and its fisheries and takes more than an active interest in all matters pertaining to the protection and comfort of our fishermen and sailors. No other Minister of Marine and Fisheries has done so much as Mr. Picott since his acceptance of office for the welfare of the fishermen of the Country. More fog alarms, light houses, buoys on shoals, extension of telegraph lines and erection of Marconi Stations in Newfoundland and Labrador have been placed by the Government since Mr. Picott took charge of the Marine and Fisheries Dept. than since Newfoundland was discovered by Cabot. In addition to this he has introduced very many sensible laws and amendments pertaining to our fisheries which are greatly appreciated by our fishermen. We feel assured that in due time Mr. Picott will be able to give our people valuable information which will be the means of enhancing the value of our fisheries as a result of experience and information gathered by him during his trip abroad.

Salt Question.

The anxiety felt for some months by our merchants and fishermen as to getting supplies of salt from abroad this year's fishery has been relieved. Through the co-operation of the Government. The Board of Trade and the Merchants the difficulty has been got over. Without salt our fishery would be valueless and the matter being brought before the Govt. by the Board of Trade, the Premier got into communication with the authorities in England and as a result of his efforts the Admiralty has released two large steamers, the SS. Alconda and the SS. Canley owned by Lord Rothermore of England. These ships will bring two large cargoes of salt from Cadiz, and are due early next month. In addition to these some other small cargoes are en route in vessels which took over cargoes of fish to European markets and these will be further augmented by some other cargoes in steamers which were chartered by the merchants last fall before shipping matters became acute.

The Canadian Fisheries Association.

Your correspondent notes with pleasure the formation of this Association which eventually must lead to great and lasting results for all those who are in any way associated with the fishing industries of Canada as well as the material advancement of the Country in general. It is to be hoped that the Minister of Marine and Fisheries of Newfoundland may be able to give the matter of this Association some consideration which may lead to a similar Association being formed in this Country.

YARMOUTH, N.S.

(Special Correspondence).

The past month has certainly been a "corker" as regards weather conditions. More or less snow every day and when it wasn't snowing it was blowing. In consequence fresh fish fare which have been landed in Yarmouth have been conspicious by their absence. There have been a few small ones, but altogether they have not amounted to one good trip — and as for fresh fish in the local market, will there simply "ain't none." The lobster fishermen have taken advantage of the occasional hour or two of clear weather but even then there was very little doing as can be seen by the exports. — only 1,435 crates in eight shipments. The industrious ones, however, have been reaping a harvest as the prices on the Boston market have gone up to the notch. On February 21 the price was $35 per crate of 140 pounds, straight. This a few years ago was a big figure. A week later, February 28, they sold at $50; on March 2, $60 was reached; on March 10, $70, and the shipment before the last sold at $75. The last shipment will probably go considerably higher as $90 was paid for an ordinary crate at the Yarmouth wharf before the shipment was made. These prices, as before noted, are for crates of 140 pounds, but many of the fishermen are such expert packers they can get two crates of fish into one wooden crate. For instance on March 2, when lobsters were fetching $60 in Boston,a crate was bought on the Yarmouth wharf by A. E. Nickerson, a buyer for a Boston house, for $140.-14, on which the shipper netted $131.18 the highest price ever paid for a crate of lobsters. On the same day he also bought a barrel for $70.80 and for several individual lobsters he paid 48 cents each. At these prices what did the two-legged lobsters in the gilded cafes of Boston and New York pay for their lobster à la Newburg or à la anything else? There would surely be a crimp put in some salaries. The Portland, Me., papers tell of 70 cents a pound being paid there and remarked that that was "some price", but thought it was not likely such high prices would prevail, because although there was some demand the general public would not purchase, and that with the Lenten season lower quotations were bound to come.

The fleet of vessels which have been fishing this winter — to which has been added the Nelson A., which went into commission last week — have been using Shelburne and Lockeport as bases lately. These places are close to the grounds and the vessels can take advantage of an hour or two occasionally, shipping their fares to Yarmouth by rail. A number of Gloucester vessels have also been using these ports and in one of the recent gales the schooner Jumo, of that port, came to grief near Lockeport and was lost. Another Gloucester schooner, the Corona, commanded by Captain

Clayton Morrissey, of this county, ran ashore at Green Island and became a total loss, together with the 30,000 pounds of fresh fish she had on board. The crews of both vessels came to Yarmouth and were forwarded to Boston by the United States consul H. H. Balch.

The mackerel men have a feeling that mackerel will be on coast a little earlier than usual this year and one of the traps has ordered its crew report for duty on April 6. Last year the traps were put down a little late and May was well advanced before the first fish was taken. It was thought that the traps had been set a little too late, perhaps, to catch the first run, but this year they will no doubt be down earlier. One of the plants, that of the Sanford Trap Company, has been sold to A. E. Nickerson, Gloucester, too, feels that they will be a little earlier and the first of the seiners have already sailed. The "killers" figure that on account of the dark nights coming after the 20th there is liable to be something doing as the fish come up the coast from that mysterious and unknown region where they go for the winter. Almost all the Gloucester seiners are "skippered" by Yarmouth and Shelburne county men, as follows:

Schs. Arthur James, Capt. John Matheson and Ralph L. Hall are getting ready and will probably be the first to sail. A new craft will be the steamer Lucia, which will be launched shortly from Lantz's yard, and will be commanded by Capt. John Seavey, who last year had sch. Monarch.

Among the crafts that will fit for the spring trip are the following:

Sch. Ralph L. Hall, Capt. Frank H. Hall; Sch. Arthur James, Capt. John Matheson; Sch. Norma, Capt. John A McKinnon; Sch. Corsair, Capt. George G. Hambr; Sch. Rob Roy, Capt. Lemuel Firth; Sch. Lucia. Capt. John Seavy; Sch. Marguerite Haskins, Capt. Reuben Cameron; Sch. Lottie G. Merchant, Capt. Ralph Webber; Sch. Saladin, Capt. Wallace Parsons; Sch. Constellation, Capt. Charles Maguire; Sch. Benj. A. Smith, Capt. Martin L. Welch; Sch. Monarch, Capt. John F. Vautier; Schrs. Thelma, Capt. Elroy Prior; Schrs. Lois H. Corkum, Capt. William Corkum.

There have been two casualties during the month, both being fishermen out of Gloucester. The first was George Surette, of Wedgeport, one of the Conqueror's crew. He and his dory mate—Byron Baker — of Lunenberg, were lost by the capsizing of their dory on Brown's Bank. He was 30 years old.

The second Yarmouth man to lose his life was Robert Bouchie, of Sluice Point, who was washed overboard from the schooner Reading during a gale.

Following are the exports for the month: Live Lobsters, crates, 1,435; Smelts, boxes, 381; Eels, barrels, 72; Hake Sounds, bags, 3; Pickled Fish, cases, 186; Boneless Fish, boxes, 2,567; Fish Scraps, barrels, 3; Fish Waste, barrels, 75; Dry Salt Fish, drums, 964; Dry Salt Fish, casks, 50; Canned Lobsters, cases, 436; Clams, barrels, 100; Dry Haddock, drums, 101; Dry Haddock, cases, 31; Dry Codfish, drums, 465; Dry Codfish, butts, 99; Dry Codfish (medium) drums, 42; Dry Codfish, (small) drums, 112; Dry Codfish, cases, 85; Dry Codfish, barrels, 86; Large Herring, half barrels, 75; Large Herrings, barrels, 14; Fish Clippings, barrels, 9; Fish Glue, barrels, 3; Smoked Herring(boxes, 52; Fresh Fish, cases, 673; Fresh Halibut, cases, 1; Scallops, half-barrels, 39; Scallops, pails, 1; Salt Mackerel, barrels, 152; Pickled Salmon, half barrels, 5; Pickled Herring, barrels, 127; Pickled Alewives, barrels, 2; Kippered Herring, barrels, 100; Threaded Codfish, barrels, 1;To Cuba: 232 drums dry fish; 375 cases codfish; To Porto Rico: 150 tierces dry codfish; 110 tierces dry fish; To Brazil: 117 tubs dry salt fish; 750 packages do.

THE SMITHS OF LUNENBURG

By AGNES G. McGUIRE.

Some time ago, The Canadian Fisherman published a story of the oldest firm in Lunenburg. The story in this issue, is not of an old firm, but of a comparatively new one, a mere baby, in fact, among the many that have been engaged in this business during the past fifty years. It is, however, a lusty, healthy baby, and is growing as rapidly as a strong baby should. The firm in question is that of W. C. Smith & Company, Limited, and it is one of the biggest and busiest of the town.

This progressive business was incorporated in December, 1899, although it had really been started a year before. After its incorporation, the president and manager was W. C. Smith, and the secretary H. H. MacIntosh, the same as in its inception.

In this firm are the five Smith brothers, along with other stockholders. They are James G., Abraham, William Charles, Benjamin C. and Lewis H., all the brothers except the last named, who until recently was the bookkeeper, have been masters of banking schooners.

Lewis, who was the youngest and led a more indoor life, was compelled to resign his position with the firm, owing to ill-health, and took up employment which would enable him to spend more time outdoors.

The brothers who were fishing captains, know fish from the ground floor up; when sailing in command of schooners their vessels were always "lucky," which means that they were mastered by men of sound judgment and a determination to find a fare, if not in the part of the Banks they first happened to strike, then move to another until the hatches were battened down over a full hold.

Among the schooners which are always referred to as the extra "lucky" ones of the firm are the M. B. Smith, Minnie J. Smith, Gladys B. Smith No. I and and Gladys B. Smith No. II., and the Clarence Smith.

At the start of the business there were six vessels, the Clarence, Minnie J, and Gladys No. I, already mentioned, and the Clara E. Mason, Howard Young and Flora Smith. These were sailed as follows: G. A. Smith was master of the Clarence, Benjamin C. of the Gladys, Captain Isaac Mason of the Clara Mason, Captain James Young of the Howard Young, and Captain Martin Mason of the Flora Smith.

Business increased so rapidly with the advancing years, that it was found necessary to erect additional buildings, those standing being totally inadequate to accommodate the growing trade which flowed in through various channels. Accordingly, during the summer of 1909, among the new buildings was a three-storey warehouse for storing fishing supplies, the top part of which was to be used as a sail loft.

A shipyard was the next necessity, and the "King" property on the west side was acquired along with the boat-house property of the late Edward Conrad, which gave this firm a frontage of a whole square on Montague street, extending from Duke to Cornwallis streets.

CAPTAIN WILLIAM C. SMITH, PRESIDENT.

During 1913, the general outfitting store on Montague street was enlarged to double its original size, and the fine suite of offices at present used by the firm were enlarged and renovated. The view from the office windows is very beautiful and combines business with pleasure as the outfitting of the many vessels is done practically within a stone's throw of the office windows and the members of the firm may sit at ease in their offices and enjoy the beautiful view, and in the meantime keep a weather eye on the wharves to see that there is no "sodjering." Eight vessels were also built during the year of 1913, four under the supervision of Solomon Morash, a builder of repute and four under Stephen A. Morash, also an expert in the business, who, although 78 years of age, has gone to Chatham, N.B., with a staff of workmen to engage in shipbuilding for the winter.

The vessels outfitted at this firm during 1915 were the Delawana, Capt. B. Cook; Mantanzas, Wentzell; Original, R. Conrad; W. T. White, Knock; J. D. Hazen, Himmelman; Jennie Ritcey, A. Ritcey; Revenue, J. Quick; Doris V. Myra, Myra; Hawanee, Cook; Benevolence, L. Corkum; Itaska, Ritcey; Clintonia, Mack; Eva June, Schnare; Cecil Beck, A. Beck; W. H. Smith, W. Naas; Muriel Walters, Angus Walters; Carrie L. Hirtle, Hirtle; M. M. Gardner, Backman; Lewis H. Smith, J. Westhaver; H. H. MacIntosh, Wynacht; W. C. Smith, Selig; James Burton Cook, A. Cook; Henry L. Montague, Knickle; Artisan, Walters; Gladys B. Smith, Knickle; Assurance, W. Quick; Frances W. Smith, Mossman; James Douglas, Romkey; Independence II., Wharton; Undaunted, Selig.

The Benjamin C. Smith, Corkum, and the J. Henry McKenzie, A. Gilbert, were in the Oporto trade during that year, and the tern schooners, H. R. Silver, Lundahl (wrecked during January), David C. Ritcey, Ritcey, Eva C. Gerhardt; Robert J. Dale,Lohnes, and the Marguerite H, Captain D. Heisler, the latter a coaster and packet, are all on the wing busily engaged in conveying cargoes hither and yon, but always to the advantage of this thriving farm.

For 1916 the new schooner, Vivian P. Smith, has been added to the fleet for Captain Roland Knickle, and a new one is now on the stocks at Mahone for Captain Artemas Schnare.

Five members of this firm have each given a son to the service of the Empire. They are W. H. Smith, only son of the president, W. C. Smith, now a lieutenant with the 112th; Clarence, only son of G. A. Smith, in the postal service at the front. Harry, only son of H. H. MacIntosh, now somewhere in France; Ivan, eldest son of Captain Artemas Schnare, with the 85th Battalion at Halifax, and Cecil, youngest son of W. H. Hebb, of Dale & Co., also with the 85th Battalion.

MR. H. H. MACINTOSH, SECRETARY.

In a few weeks at most, activities will begin for the setting forth of the spring fleet and the street which has been hibernating for the past few months will spring into life almost overnight and then the stupendous task of outfitting the bankers, as only the Lunenburg bankers outfitted, will once more be enacted.

A forest of spars will line the wharves, everyone will be on the jump and the uninitiated would wonder how order could ever be restored from the apparent chaos of the wharves. It is only apparent, however ,and in a surprisingly short time, the fleet of white wings will be spread and vanish around the last headland.

In this ever-growing business, there has been additions to the staff, a stenographer, bookkeeper and extra clerk being needed to keep up with the increased volume of work.

CAPTAIN BENJAMIN SMITH.

The secret of the success of "The Smiths" as they are locally referred to, the name of the firm being almost too long in these days of shortening and hurrying over long titles—lies in the fact that they pay strict attention to business, are sober, industrious and striving and when men apply these qualities to business they invariably spell success. They all own fine homes, have bank accounts which render work an impossibility, and it needs no gift of prophecy to predict a brilliant future for the firm of W. C. Smith and Company, Limited.

'TWIXT DE FISH HOOK AN' DE PAN.

By Frank H. Marshall.

Yo' feels yo' line a-jerkin'
  An' yo' h'aht begin to jump;
Yo' eyes bug out an' den yo' cuss—
  Hit ony was a stump!
Yo' almos' felt dat crappie
  A-flappin' in yo' han';
But dey's many slip betwixt
  De fish hook an' de pan.

Yo'll fin' in life dat dis is
  De bery safes' rule—
Don' yo' begin to eat yo' fish
  While dey's swimmin' in de pool;
An' don' yo' smell 'em fryin'
  Befo' yo' see 'em lan';
  Kase dey's many slip betwixt
  De fish hook an' de pan.

CAPTAIN G. A. SMITH.

"The fleet of white wings will be outspread."

THE PACIFIC FISHERIES

(Special Correspondence.)

HERRING ON THE PACIFIC COAST.

By F. J. HAYWARD.

To many people especially those of the Maritime Provinces, it appears that no Herring is obtainable in British Columbia. This idea may have arisen from the fact that in past years several carloads of "Labrador Herring" have been sold here, and sent from Nova Scotia. The majority of users of salt fish in this Province hail from theMaritime Provinces and Newfoundland, and want nothing but the large split herring that they were brought up to use. In just the same way a Scotchman will swear that there is no herring in the world to equal the "Loch Fyne" or "Castlebays."

But there are all sorts of herring on the Pacific, far more in fact than around Nova Scotia and Newfoundland. The herring here have not been sought after until very recently. In Alaskan waters are found very large herring, and this year they have brought high prices in Seattle. Some years ago the industry was a large and most promising one. It was strangled at its birth by the same short-sighted greed that has so long stood in the way of large prices being obtained for Nova Scotian and Newfoundland herring.

Men who understood their business packed properly, and were able to get good prices. Once that this was done, many other started in packing. Some were all right, but others were not by any means. They put up goods that might appear when first opened up, to be all right; but digging down into the barrel found the same sort of fraud that pertains to barreled apples sometimes. Neglect in grading, right and uniform curing, and old fish used knocked on the head all the work done by the conscientious and skilled packers. The result was that the buyers could not depend upon what they were offered, and so prices fell away.

I understand, however, that the Alaskan packers are now doing all they can to remedy these evils, and taking advantage of the present state of the market, to get back their trade. A glance at the map of the North Pacific will show one that the tremendous stretch of coast cannot but abound in herring. Local conditions call for a lot of experimenting both in means and ways of fishing, and the adaptation of known methods. Climatic conditions also call for thoroughly experienced men who can adapt their knowledge to turn out a class of goods to suit the most particular markets.

Alaska has found that the only way to get in on a market is to have packing done on a large scale, and by as few different companies or independent packers as possible. The buyers prefer naturally to have the goods packed under the superintendance of good men, and in the start good men are scarce. So far the Scotch cure has hardly been attempted in Alaska, the Norwegian and American (a slight variation) being adhered to.

Up to recent date, about all the industry comprised of in British Columbia was dry salting for the Chinese markets. Some kippering and smoking have been done for many years; the B. C. kippers being a very tasty and favorite breakfast dish around Puget Sound. Many attempts were made to cure Scotch method, and many skilled men and girls were imported from Great Britain to this end. Where the companies trying this thing, erred, is not for me to show. But at all events, they were not successful.

At one time it looked as if there would be quite a trade in Australia. The first shipments created a good impression, and called for more. At that time shipping facilities did not run to cold storage, and further shipments were spoilt owing to the fact that the steamers passed through very warm belts.

What was quite an industry and is now entirely in the hands of the Japanese, was what is known as dry-salted herring. These are seined fish which were obtained in large quantities around Nanaimo and Chemainus on Vancouver Island. Many thousands of tons were shipped to China yearly and at low prices. The writer was able to get all he wanted two or three years ago at $17.50 per ton of 2,100 pounds f.o.b. the ocean boat. These fish were packed in boxes of about 500 pounds each. To-day fish is very high in China, and the present delivered Shanghai price about twice the record. This is entirely due to the lack of steamer space. About the only boats running to Shanghai and ports taking this fish are Japanese. Space is at a premium, and the more so because the Japanese Government has ordered the steamship owners to give the preference to their own people. Fish has also been very scarce this season. In fact, many are inclined to the opinion that the granting of seining licenses has thinned out the fish very materially. At all events well-informed Japanese are inclined to the opinion that this trade will cease in a very few years.

It is thought by many that the reason that the B. C. herring were so small, is that seining was allowed. It certainly seems that there is something in this, for where seining is not allowed, the fish are much larger and better all around. I have seen in a catch obtained by seines, some fish that would go three to a pound, and others that would qualify for sardines.

Before the B. C. herring industry can become what it should be, there are several difficulties to overcome. The first is that the authorities prohibit seining in any part where fish suitable for curing may be obtained. This may not be to the interests of those who want herring for bait, but bait is not an industry and other sorts may be obtained. Another thing that will have to be altered is that a license given to a fisherman will allow him to follow the fish. We all know that herring is a restless fish, and liable to move from a district any day. At present the license permits the holder to fish in a specified area only, and this area very small. This past season the holders were allowed to go where the fish were, on a transfer, and this led to minor troubles. Pender Harbor was the fishing ground this season, and there were about twice as many boats fishing as the limited grounds could accommodate. This will all be adjusted in time, if we have the co-operation of the government officials, packers and fishermen.

Sad to relate, the fisherman — to use a mathematical expression—is an unknown quantity. This season they got it into their heads that they were not being treated properly. It was force of circumstances only that brought on their grievances. But in a crowd one is sure to get men who think that they know more than their fellow men and who will not listen to facts or reason. Word was passed around that the packers were getting absurd prices, and so the herring fishermen declared a strike for a price that would not allow packing. After some days of idleness, fishing was resumed at a price that nowhere paid the packer for his outlay and risk. It is to the credit of the packers that they carried on as they did. They were not in any way compelled to by their contracts with the buyers. But the industry had a good start and a chance of becoming established, and if they had ceased operatious, it would have meant another long grind to get on the large markets again. British Columbia is sadly lacking in good industries, so every new one should be encouraged and not blocked by greed.

Re-filling Before Shipment.

I will be fair and admit that the fishermen had some reason to complain. The great pest of the world wide—the dogfish—played havoc with some nets. Then as I stated before, the boats were too crowded to permit fishing in comfort. On the other hand, if an industry is to be a success and a permanent one, the co-operation of all concerned is necessary. Each barrel used here means about $1.00 spent in wages to coopers, lumber to mills, and for materials. Each barrel of herring means wages to packers, to coopers, and for salt, in addition to this there there being the cash paid for the fish. Contingent on all this is the distribution of money for nets, boats, fuel, food, and plants which all go to make for the prosperity of a community.

Owing to abnormal weather conditions, the size of the pack of Scotch cured herring in B. C. this winter was smaller than anticipated. But the results are that the pack has a good name with the buyers, and will allow packing another season. Considerable credit is due to those packers who had the courage and foresight to start the industry. They have made a good name to themselves and deserve all that they received. This unfortunately was not very much, for operating expenses are very large, and conditions were against them. Other seasons, much of this can be obviated.

I give a photograph of operations of the Royal Fish Company of Vancouver at Pender Harbor. The operators shown in these photographs are all from Great Britain, and trained in the curing of herring. Strict attention was paid to grading and packing was under the superintendence of Scotchmen of long experience in their own country.

Given encouragement both by buyers and by those who arrange the fishing laws, British Columbia will in time be a big producer of herring. Care must be taken to keep the quality and grade encouraged. I do not say this with any "hogging" idea, for there are several competent persons whose goods will fetch all that the market can stand. On the other hand, by having a pack put up by a multitude of small packers, human nature will only make it natural for some of these operators to be careless and greedy. One man doing this will interfere with the whole pack, and make the buyers very cautious and strict in examination. It would appear that now is the time to utilize the Pickled Fish Inspection Act of Canada, and make it compulsory. It is in order here to ask why it is that there has been no competent experienced inspectors appointed for British Columbia. Some packers state that they can get along better without them. But it is only reasonable that if the industry is to be protected and keep the fair name it now has, that the authorities take care that this good name continue.

I read with great interest an article in the February issue of the "Canadian Fisherman," entitled "Drift net fishing for Herring." It is written by Mr. J. J. Cowie, and is most explicit. It would appear that the waters of British Columbia are excellently adapted for such methods. Our tides in some places, it is true, might be too swift; but in most places would help. All the fishing boats are equipped with engines. But we would like very much to know where we would get off at with the fishing regulations.

This past season has also seen a few cases of canned herring packed in British Columbia. They have been well received on the markets, and repeat orders given. With the many canneries idle in about five months of the year—some more—the installation of a little extra machinery will give us another outlet for our abundance of herring.

PACIFIC NOTES

The Columbia Cold Storage Co. of Steveston, B. C. have renovated and overhauled their Steamer "Roman" for the 1916 season. The vessel was outfitted and sailed for the Northern fishing banks on March 14th. The owners have announced that during a portion of the ".Romans's" trip she will prosecute a search for the missing steamer "Onward Ho" which has been missing since January 18th. There appears, however, to be very little hope that this steamer with her crew of thirty-seven men ever be heard of again.

The schooner "Borealis" belonging to the Atlin Fisheries, Ltd., Prince Rupert has been sent to Vancouver for overhauling and outfitting for the coming season. The "Borealis" operated during 1915 out of Prince Rupert, but it is the intention of her owners to run her out of Vancouver for the present at least. Captain Chris Johnson will again be in command.

The gasoline launch "Prince Olaf" reached Prince Rupert on Feb. 17th, with 12 tons of herring bait. This was the first herring bait brought into Prince Rupert Harbor in any quantity this season and the cargo was immediately sold to schooners in the harbor waiting for a bait supply at $17.50 per ton.

The latest Order in Council containing regulations governing the baiting of American fishing vessels at British Columbia Ports is still further evidence of the desire of the authorities at Ottawa to attract business to B. C. ports at the expense of Seattle and ports in Alaska. Hitherto it has been impossible for an American Schooner to obtain a supply of bait at B. C. port without having previously delivered a catch of halibut. The Order in Council just issued permits an American schooner to enter any port or harbor in British Columbia and take a supply of bait upon giving an undertaking that the fish caught on that voyage will be landed in Canada. Prior to 1915 it was impossible for any American fishing vessels to use a port or harbor in British Columbia except for fuel and water, or under stress of weather. This regulation was slightly relaxed in instances where the owners of the vessels had previously obtained a special Order in Council permitting the landing of American caught fish in bond. In the regulations which have been issued from Ottawa during 1915 and 1916, any American fishing vessel can land its cargo of fish at a port in British Columbia for shipment through Canada in bond, and furthermore such vessels can purchase any and all supplies needful for the further prosecution of their fishing business. Until the latest regulation was published, however, an American fishing vessel was obliged to deliver its catch at a Canadian port before it could take on bait or supplies, but this has now been relaxed and such vessels can take on bait and supplies if an undertaking is given to land the fish which they may catch during the voyage following such outfitting.

Mr. V. G. R. Vickers, Superintendent of the Dominion Express Co. at Montreal spent some days at Vancouver and Victoria.

One of the busiest places in Vancouver to-day is the dock of The Canadian Fishing Company Limited. During the winter just closed six of this Company's halibut fishing vessels were laid up until the spring. During the winter the Company acquired by purchase the Steamer "Kingsway". This latter vessel, although well adapted for otter trawling, for which purpose she was built, required considerable overhauling and rebuilding to meet the very different conditions of Halibut fishing. A start was made at the end of January to get all these boats ready for sea, and a small army of men were set to work on the vessels. The "Celestial Empire" was the first vessel to sail. After she had been fitted with a hurdy gurdy operated by steam, and with a brand new outfit of 48 lb. Lines, the heavier line being necessitated by the greater depth in which vessels fitted with power gurdies now operate, she was followed by auxiliary gasoline schooners "Pescawha" and "Borealis," both of which vessels required extensive overhauling in their engine rooms to fit them for the coming season. The work is now proceeding with the re-building and overhauling of the "Kingsway," and of the outfitting of the "Carlotta G. Cox," and as soon as these two vessels are out of the way they will be followed by the "Emma H" and "Knickerbocker". Although under ordinary circumstances, the Canadian Fishing Co. Ltd. employs around its wharf, warehouse and cold storage plant about seventy-five men, a large number of machinists ships' carpenters and laborers had to be hired to handle the extra work.

Captain Chris Hendrickson has taken command of the Schooner "Zorra" belonging to the Atlin Fisheries Ltd. at Prince Rupert. She is expected to operate out of that port during the coming summer.

The Columbia Cold Storage Co. of Steveston, B. C. announce that they will again operate a Halibut Buying Station at two points on the Northern British Columbia Coast during the coming spring and summer. The points at which the stations will be located has not as yet been definitely fixed, but, in the meantime, the Steamer "B.C.P." is being gotten ready to act as tender for the stations.

Mr. T. H. Johnson, manager of the Canadian Fish & Cold Storage Co. at Prince Rupert, is at the present time making a tour of Eastern Canada and United States cities in the interests of his Company. It is reported that Dr. Harry Ives and Mr. A. E. Bechtel have been visiting Prince Rupert with a view to a possible location at that point for The Victoria Fishing Company.

All Steamship Companies operating between Seattle, Wash. and points in Alaska announced on March 13th that the rate on fresh fish in boxes from Ketchikan, Alaska to Seattle has been raised from $5.00 per ton to $7.50 per ton.

Fort the first time since Salmon fishing has been prosecuted on Puget Sound, a closed season has been declared. The State of Washington has declared a closed season from March 1st to April 15th on all Salmon fishing in Puget Sound and adjacent United States territorial waters. This close season will practically coincide with the annual closed season of the Columbia River which lasts during the months of March and April, and should create a scarcity of salmon from American points which will be a benefit to Canadian shippers while the closed season lasts.

The British Columbia Wholesale Fish Dealers Association has held its first banquet. To say that the affair was a huge success might seem like an exaggeration, but this is what the Banquet Committee believe and all those who were present agree with them. The banquet was held on February 29, and this date was fixed on because February 29th was "Canada's Fish Day" and a more appropriate date could not have been thought of. The Association appointed a committee consisting of:

Messers. W. Hamar Greenwood,
B. E. Neville,
Harry S. Ives,
F. J. Hayward,
F. E. Payson.

The general arrangements were in the hands of Mr. Greenwood. Messrs. Neville and Ives took charge of the catering. Mr. Hayward looked after the sale of tickets, while Mr. Payson had charge of all the many odd jobs connected with an affair of this kind. The Banquet took place at McIntyre's Cafe and a first class fish menu was provided.

After the dessert was served, the Chairman, Mr. Greenwood, proposed the toast to "The King". He was followed by Mayor McBeath who proposed "The Army and Navy." This was responded by Col. Mullen and Col. F. H. Cunningham. Col. Mullen, who is Inspector General of Supplies and Transportation in Western Canada, gave a detailed account of the difficulties which had been experienced in introducing fish both fresh and cured, into the Ration List of the Canadian army and gave great credit to Major Hughie Green whose efforts had resulted in fish being a regular article of diet of the Canadian soldiers both in Canada and at the front. Col. Cunningham dwelt at length on the increase of the fisheries in British Columbia during recent years. The toast "The Fisheries" was responded to by Messrs. R. R. Payne Harry West and Dr. McLean. Other toasts were "The Press" and "Our Guests". The speech making was interspersed with an excellent musical programme.

Mr. A. L. Hager, Manager of the New England Fish Company, and The Canadian Fishing Company Limited, spent several days in Seattle at the end of February.

CANADIAN FROZEN SALMON AND HALIBUT AND REQUIREMENTS OF BRITISH TRADE.

Extracts from several speeches made at the meeting of the Cold Storage and Ice Association, in reference to the paper read by Mr. John Tabor, on:

The Application of Refrigeration in the Marketing and Distribution of Fish in Great Britain.

In the discussion which followed, Mr. R. W. May, a Billingsgate importer and fish salesman said:

"I can speak from almost thirty years experience in the frozen salmon trade and it has been most disappointing. Very many times it has resulted in loss to shippers and salesmen and we do not seem to be able to break down the prejudice which the public has. It might have been done by some form of advertising but there is that prejudice against frozen fish very hard to get over. Mr. Tabor mentions about the weights of Canadian fish. You cannot depend on weight of boxes received and this fact ought to be well advertised the other side. The article is cheap in Canada and it would be a good advertisement for the fish to find it in certain instances 2 to 3 lbs. over instead of 5 lbs. short."

Mr. Gilbert Anderson, a prominent agent of New Zealand produce in London said:—

"It is interesting to examine why the Canadian salmon and halibut trade has, as some of our expert friends have said, been unsuccessful in this country. In the earliest stages of the frozen meat trade which I had intimate connection in New Zealand, we were unable to get the industry on to anything like a satisfactory footing until we had graded and sorted our product thoroughly to suit the requirements of the customers in Great Britain. I am rather surprised to find that our Canadian friends, who are supposed to live alongside a very hustling people, have not learned to study marketing, and I would strongly recommend that those interested in the Canadian salmon trade should advise the Canadian Government to pack their fish in smaller boxes. To, mention my own experience in the frozen meat trade, it was quite impossible for us to get the trade to take New Zealand sweetbreads until the exporter had packed these for export in suitable small boxes, which the trade could handle and the matter was not righted until the producers were got to recognize this, which I found them slow in doing."

M. Tabor the author of the paper, in his reply said, we know that one of the great troubles with regard to the Canadian trade in salmon and halibut is the enormous packages in which this fish is sent to this country. Fishmongers will not buy big packages. If you gave them a smaler package there would be a much better demand, and if we can get the Canadian shippers to put the fish into smaller packages, fishmongers would go in more freely for the frozen stuff.

Trusting that you will be able to remit this effectually to the proper quarter in the interests of the frozen fish industry.

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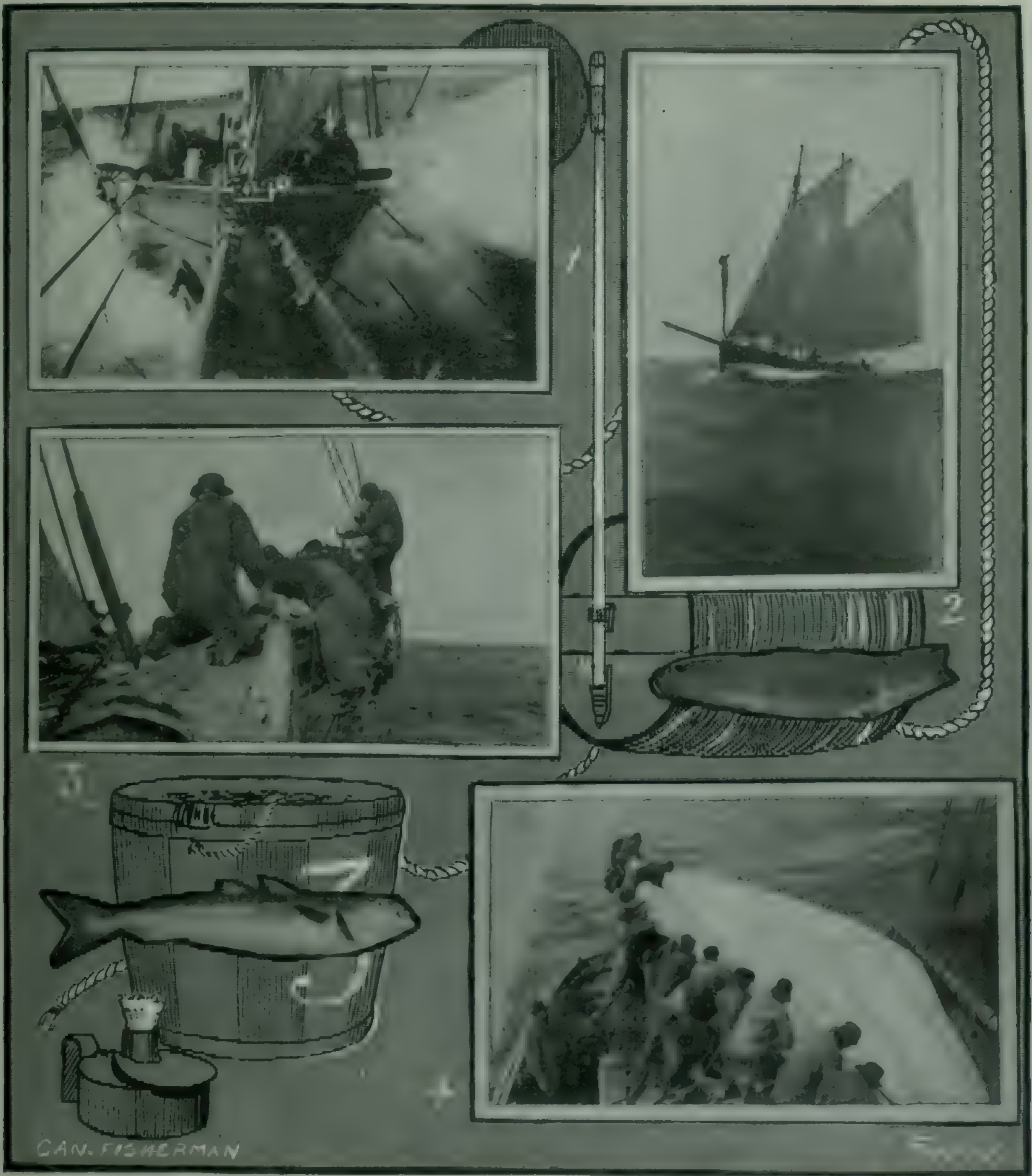
CANADIAN · FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, MAY, 1916 No. 5



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ONTARIO
Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted—October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries
Of the Province of Quebec

DEPARTMENT OF THE NAVAL SERVICE

FISHERIES BRANCH

Lobster Fishery Fishing Seasons in Force on January 1st, 1916

Number of District	Limits	Fishing Season	Size
1	Charlotte County, N.B.	Nov. 15 to June 15	10½ inches
2	St. John County, N.B.	Nov. 15 to June 1st	9 inches
3	Albert County and Portion of Cumberland County, N.B., and King's and Annapolis Counties, N.S.	Jan. 15 to June 29	No Size Limit
4	Digby County	Jan. 6 to June 15	No Size Limit
5	Yarmouth, Shelbourne, Queen's, Lunenburg, and that portion of Halifax county west of a line running S.S.E. from St. George's Island, Halifax Harbour, and Coinciding with Fairway buoys	Dec. 15 to May 30	No Size Limit
6	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including Chedabucto and St. Peters Bays and the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite	April 1 to June 20	No Size Limit
7	Remaining portion of Cape Breton Island, including St. Paul's Island, not covered by District No. 5	April 15 to July 15	No Size Limit
8	The Magdalen Islands, including Bird Rocks and Bryon Island	May 1 to July 20	No Size Limit
9	Waters of Northumberland Strait, between a line on the N.W. drawn from Chockfish River, N.B., to West Point., P.E.I., and a line on the S.E. drawn from the west side of River Philip channel at the mouth of the river, Nova Scotia, to the eastern entrance to Victoria Harbour, Queens County, Prince Edward Island	May 25 to Aug. 10	No Size Limit
10	On and along the portion of the coast or the waters thereof, of the Provinces of Nova Scotia, New Brunswick and Prince Edward Island, westwardly and northwardly, from the Lighthouse in Antigonish County, opposite Flat Point in Inverness County, Nova Scotia, to the northern boundary New Brunswick, including the coasts and waters thereof of all the islands adjacent to these portions of the coasts of the said Provinces as well as the coast and waters thereof of the Counties of Quebec south of River St. Lawrence, except those specified in No. 8	April 26 to June 25	No Size Limit
11	North of the Gulf and River St. Lawrence including Anticosti Island	May 20 to July 31	No Size Limit

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of the Naval Service is required.

Cases of canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

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A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA AND NEWFOUNDLAND THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE - OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, MAY, 1916 No. 5

May Fish Day Calendar

1916			MAY			1916
Sun.	Mon.	Tues.	Wed.	Thurs	Fri.	Sat.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPARATING FISH FROM FRIDAY.

One of the greatest and most important tasks of the Canadian Fisheries Association falls on the shoulders of the Publicity Committee. This Committeee have set themselves the task of separating the consumption of fish from merely religious motives, and educating the public to appreciate fish as a tasteful, healthy and economical every-day diet.

Friday is the big fish day in most parts of Canada, and nearly all the business of the wholesale houses is done during the latter part of the week. The retailers are busy on Thursday and Friday—the rest of the week is a slack time with merely desultory sales enlivened now and again by a special Fast Day.

The Association's National Fish Day was held on a Tuesday, and proved a phenomenal success. Why not make Tuesday a special Fish Day every week in the year? Of course, we in the Fishing industry want to see a general consumption of fish every day, but the education of the public to the more general use of a fish diet is a slow business. We must crawl before we walk.

Tuesday as a weekly Fish Day has much to recommend it. It is the slack end of the week, and far enough from Friday not to interfere with it. Supplies can be brought in over Sunday and delivered to the retail trade on Monday, and the advertising of fish specials by the retailers can be done in the Monday evening papers.

Advertising is necessary to bring the whole thing about. The public are used to seeing fish advertised on Friday; they know that fresh stocks and greater varieties are on sale that day. Make Tuesday a special Trade Fish Day along the same lines. Advertise special fish bargains and varieties; placard the retailers' windows with posters advertising the fact that special stocks have been imported for Tuesday's trade, and let every dealer, wholesale and retail, throughout the Dominion, inform their customers that on Tuesday of each week a large and varied stock of fish will be on sale.

Every man engaged in the Fishing Industry of the country will readily understand the great benefit that will accrue to the Trade if this idea can be firmly established. It can be, and the Canadian Fisheries Association intend to formulate plans for the carrying out of the suggestion at an early date. In the meantime, we would be glad to receive expressions of opinion from our readers on the subject.

FISHERMEN'S HOSPITAL SHIP.

Once again it is our grateful duty, in the name of the Canadian and Newfoundland fishermen, to thank the United States Government for the splendid services rendered to fishermen by the U. S. Hospital Ship "Androscoggin," during the winter of 1915-16.

Making Shelburne Harbor her headquarters, the Hospital Ship voyaged forth at intervals, and cruised among the fishing fleet offshore. Many men were treated for minor ailments; several severe cases of sickness were rushed to the shore hospital at Halifax, and a great deal of medicine was distributed to those fishermen who applied for it.

The Hospital Ship is appreciated by the fishermen. They know when she is on the station, and the men feel that should any severe illness or accident befall them, the "Scroggins" is somewhere under their lee, and quick treatment can be procured aboard of her. Though an American institution and endowed by the United States Government, the Hospital Ship makes no discrimination in the nationality of her patients, and Canadian and Newfoundland fishermen are cared for the same as United States citizens.

Work of this nature receives its reward in the nobility of its motive. It is above petty politics and national grievances. It exists for the alleviation of suffering among the great fraternity of seafarers who wrest their living from the shoal waters of the stormy Western Ocean. On the Banks, nationality is of no import. Fishermen hailing from Canada, Newfoundland, United States, Russia, France, Sweden, Norway and Portugal man the schooners seeking the cod, haddock and halibut on the Western Atlantic Banks, and the Hospital Ship is out to serve them all.

It is a noble mission, and serves to cement the bonds of esteem and friendship which exist between the two great North American nations—nations under separate flags, with a border of three thousand miles dividing, and not a fort, garrison or gun on either side to menace each other or interrupt the peace of a hundred years.

FISHERMEN AND RECRUITING.

During the past winter, a large number of fishermen on the Atlantic Coast have enlisted for overseas service in the Army. In many localities, the enlistment has been unprecedented, especially so in Nova Scotia, when the battalions of Nova Scotia Highlanders were being recruited.

While we commend the patriotic spirit which animated the men and give them credit for enrolling in a service so totally different to the life they were used to, yet we would like to point out to those responsible for raising new units the serious situation which is likely to arise should enlistments of fishermen continue.

In many ports and fishing districts the shortage of experienced fishermen is being felt. Vessel fishermen, boat fishermen and fish workers on shore are becoming scarce. Individual boat owners are enlisting and hauling their crafts up—thus depriving the industry and lessening production; vessel owners are hard up for crews to man offshore schooners, and fish workers are at a premium. All this is happening at the time when men are needed in the development of Canada's fisheries.

The European War has proved a boon to Canada's fisheries. Consumption has increased greatly, and many new markets are open to our fish and fish products. If we ever intend to develop our great fishery resources and "put them on the map," now is the time, but we cannot do it if our experienced fishermen are encouraged to enrol in the Army.

In Great Britain, the same state of affairs cropped up when Lord Derby's attestation scheme and conscription went into effect. The importance of the fishing industry as a food producer and the seafaring qualifications of the men led to the issuance of a proclamation stating that "fishermen are regarded as a Reserve for the Navy, and are not liable for service in the Army unless it should be decided at some future time that they are needed for that service."

Something of the same will have to be done in Canada or the industry will be ruined. Experienced fishermen cannot be replaced by women or greenhorns. It takes a life-time to make a fisherman. It is a skilled profession calling for unusual knowledge only gained by long years of experience.

Of course, recruiting in Canada is voluntary, and it is up to the men themselves. The fishermen will not dodge the call for men by claiming that they belong to an indispensible profession. They are ready and willing to do their bit, but the whole thing will have to be carefully studied by those in authority and a decision rendered as to whether the country can afford to let these men go. The man who stays at home and does his work as a producer and developer of a natural resource is doing his duty to the Empire just as much as the man in the trenches.

THE TOLL OF THE FISHERIES.

When the list of fishermen lost in the fishing fleets out of Gloucester are published annually, it is practically an obituary list of Canadians and Newfoundlanders. The mourning for the lost men is not done in American homes, but in the villages and hamlets of Canada and Newfoundland.

During the year 1915, thirty-one men paid the toll to Old Ocean for the finny spoil they wrested from her waters. Out of that number, twenty hailed from Canada, four from Newfoundland, and seven from other countries. We publish the list of those Canadians and Newfoundlanders who paid the toll as enumerated in the "Gloucester Times."

Joseph Tebedo, 40 years old, native of Nova Scotia, single, one of the crew of schooner Fortuna, died at Galveston, February 16.

Pius Landry, 30 years old, native of Arichat, C.B., single, fell overboard from schooner Morning Star off Boston light, February 23.

Charles R. Nickerson, 50 years old, native of Argyle, N.S., fell overboard from gasoline steamer Medomac off Thacher's Island, March 6, left widow and several children.

John Bell, 43 years old, native of Port Latour, N.S., one of the crew of schooner Stiletto, fell overboard at Perkins Wharf in attempting to board his schooner, March 31, left widow and four children.

William McNair, 38 years old, native of Mulgrave, N.S., single, went astray from schooner Virginia on Western Bank, March 27.

Lewis Dix, 23 years old, native of Placentia, N.F., single, one of the crew of schooner Manomet, was drowned on Cashes bank, April 18, by the capsizing of his dory.

John E. Corcoran, 49 years old, native of Pubnico, N.S., one of the crew of schooner Saladin, died on board the vessel June 1, off the Cape Shore, left widow and two children.

Arthur McNeil, 51 years old, native of L'Ardoise, C.B., single, fell overboard from gasoline boat Lois H. Corkum, while heaving the sounding lead off Nantucket, June 21.

Bernard Curtis, 30 years old, native of St. Mary's Bay, N.F., single, one of the crew of schooner Frances S. Grueby, fell out of his dory and was drowned June 20, off Highland Light.

John Penny, 32 years old, native of Nova Scotia, single, one of the crew of schooner Ingomar, was drowned on Brown's Bank May 22, by falling overboard from his dory.

John Worthing, 26 years old, native of Argyle, N.S., single, one of the crew of schooner Gladys and Nellie, fell overboard from his dory in South Channel, July 17.

Howard Feener, 28 years old, native of Port Medway, N.S., single, one of the crew of schooner Bay State, fell overboard in boarding his dory on Quero Bank, August 9.

Capt. Adelbert J. Nickerson, 66 years old, native of Argyle, N.S., widower; Richard Comerford, 40 years old, native of Newfoundland, single; Oliver Bullock, 35 years old, native of Nova Scotia, single; Aubrey McLain, 33 years old, native of Cape Breton, single, master and part of the crew of schooner Chicopee, which sailed from Galveston, Texas, August 16, and is supposed to have foundered in the Gulf of Mexico. The remainder of the crew did not belong in this city.

William J. McCarthy, 50 years old, native of Fortune Bay, N.F., was washed overboard from schooner Gov. Foss, off Shelburne, N.S., November 27, left widow and five children.

William Waters, 50 years old, native of Harbor Breton, N.F., left widow and four children, and Dennis Hubbard, 30 years old, native of Yarmouth, N.S., single, two of the schooner Oriole, went astray in the fog on Quero Bank, November 8.

John Goodwin, 26 years old, native of Argyle, N.S., single, one of the crew of the schooner Elk, was drowned on Brown's bank December 1 by the filling of his dory. His dorymate, Philip Kruse, was rescued.

Robert Cavanagh, 21 years old, native of Canso, N.S., single, was knocked overboard from schooner Evelyn M. Thompson, December 13, off Boston light.

Capt. Robert Diggins, master, 54 years old, native of Nova Scotia, left widow and one child; Pius McPhee, cook, 47 years old, native of Prince Edward Island, single; Joseph Beaton, 18 years old, native of Ingonish, C.B.; of schooner Ella M. Doughty, which sailed from port November 3 on a Newfoundland herring trip, and was never heard from.

PRESERVATION OF BAIT IN FISHING VESSELS.

Fishermen on both the Atlantic and Pacific will be interested in a new method of keeping bait fresh aboard fishing vessels. The owners of the Gloucester schooner "John Hays Hammond" have fitted her with a miniature freezing apparatus for preserving bait, and from all reports it has worked very successfully.

In the hold of the vessel are three tanks which are filled with a mixture of chopped ice and salt, and from which pipes are led around the hold, making a miniature refrigeration plant on the vessel. The effect of this system is to keep the temperature in the hold at an average of 20 degrees above zero.

With this temperature, bait taken from the local freezing plant and placed in the hold is kept in the same condition as it is received. If fresh bait is taken it may be placed in the ice as usual, and then kept hard by the freezing plant.

The value of the plant is in the amount of bait saved. After each trip there is usually considerable bait left. Under the old condition this bait, the value amounting to hundreds of dollars in the course of the year, was thrown away. Now by means of the plant, it can be kept from trip to trip.

Because of the space in the hold which the plant occupies, it is not necessary to carry as much ice as formerly, probably about ten tons less, which makes quite a saving in the course of a year.

This plan could easily be adopted by our own fishermen in offshore craft, and it would prove invaluable in the summer months, when bait deteriorates rapidly and often has to be dumped overboard.

PISCATORIAL PARAGRAPHS.

Captain H. F. Robinson, Manager of the Maritime Fish Corporation's Canso branch, spent a few days in Montreal during the latter part of April.

Mr. Joseph Riendeau, Fish & Game Inspector for the Province of Quebec, for many years, died on April 25th at his residence in Longueuil, Que. Mr. Riendeau was 74 years of age, and throughout his life took a great interest in the protection of fish and game.

Major Hugh A. Green, Director of Fish Supplies to the Canadian Overseas Forces in Europe, has a mascot in the shape of a gold-fish, which answers to the name of "Maggie." Maggie was the source of much merriment in the Canadian House of Commons recently.

We beg to offer our sincerest sympathies to the Hon. John D. Hazen, Minister of Marine & Fisheries, on the loss of his son, Lieutenant James Murray Hazen, of the Canadian Field Artillery, who was killed in action at the Front recently. The Minister has another son serving as an officer, in one of the Canadian regiments.

Mr. D. J. Byrne, President of the Canadian Fisheries Association, has been selected by the Oyster Growers and Dealers Association of North America to act as Toast-master at the great convention which the American oyster men are holding at Atlantic City in May. From what we know of Mr. Byrne, it would be hard to find a better man with the qualifications of tact and good humour necessary for the position.

Mackerel are being taken off the Virginia coast. The schooner Valmont, Captain Wallace Walker, was the first to land a catch this year. The fish were taken during the first week in April. The Gloucester schooners Benjamin Smith, Capt. Martie Welch and Monarch, Captain John Vautier, landed 125 barrels each fresh mackerel at New York on Friday, April 21st. The fish ran three to the pound, and the wholesalers asked 12 1-2 cents a pound.

The Producers Fish Company, Ltd., of Port Stanley, is an aggressive, up-to-date organization largely composed of the Lake Erie fishermen. The shareholders of the company own the largest fleet of fish tugs on Lake Erie. The Company cater to the Canadian trade particularly, and ship to the United States their surplus stock, which is distributed through a branch warehouse and office in Buffalo, N.Y. The Producer's Fish Company, Ltd., show their faith in the future of the Canadian fishing industry by supporting the Canadian Fisheries Association, of which they are members.

RECIPE FOR DRESSING NETS.

The Fishing News recommends the following as a dressing for preserving fishing-nets:—A mixture of linseed oil, oil of turpentine and wax. For 20 square yards of nets he gives: 5 lb. of linseed oil, three tablespoons of oil of turpentine, and a lump of wax the size of a hen's egg. The mixture is to be heated to melt the wax, the net is then soaked in it while still hot, wrung out, and hung up to dry. "Nets so treated are waterproof and dirt proof, and won't go mouldy; the yarn is rendered a bit stiff, but not brittle."

Canadian Fish in England

Writing to the "Fish Trade Gazette" Mr. Thomas Robinson, of Grimsby, says: "In your issue of January 15 I read with a good deal of pleasure the very interesting particulars given in your "Cold Storage" column by Sir Charles Petrie, with regard to experiments with frozen fish, and his efforts in trying to place it successfully on the British markets. It has been a very uphill business, I know, and there is every credit due to Sir Charles Petrie and his firm for following the business up all these years. In the first paragraph he refers to the recent experiment carried on between the Board of Agriculture and Fisheries and the Government of the Dominion of Canada. I would say that Sir Charles Petrie's comments on that experiment are made from outside or superficial knowledge.

"I was asked to undertake the distribution of this consignment on behalf of the Department of Fisheries and the Dominion Government. I should frankly say that from the standpoint of this consignment it was not a success financially; but it was scarcely expected to be a success financially. It was done mainly to bring the Canadian fish prominently before the British fish trade and consumers, with a view of their ordering direct from Canada, and there were a few things that militated against its success, which I will endeavor to point out.

"First, the consignment consisted of only 3,000 lb., which is one and a half of a Canadian ton, and was composed of finnies, fillets, witches, headed cod, haddocks, coalfish, flounders, herrings, mackerel, sprags, kippers, bloaters, and whitefish — thirteen different sorts. To strike an average, there were only, say, about 200 lb. of each class, and in some instances there were only 50 to 100 lb. of each sort, finnies and fillets being the chief. We sent to fifteen centres, so you will readily see that where we had only from 50 to 100 lb. of a given sort, there would only be a very few pounds sent of those particular sorts — not enough to make a test by any means.

"Second, I met the consignment at Liverpool, and found they had been badly started from Canada; the fish were soft, particularly the finnies and fillets, and had to be put into cold storage and into the sharp freezer for several days. On arrival it was not fit to send out. This is up against the Canadian shippers. Then, compared with our British finnies and fillets, there is much room for improvement, in splitting particularly, and curing.

"Third, the request of the Department of Fisheries—that, after being on view in the respective markets for the morning, they should be sold by auction to the highest bidder. Well, you cannot very well offer 7 lb. of sprags, and 7 lb. of cod, and so on, singly; the result was the samples of the smaller amounts were all put in one lot in most cases and sold. To have made this consignment a success we ought to have had not less than ten to twenty tons, so that it might have been put in cold storage on arrival, and advertised through the medium of your valuable paper, stating we had these fish at Liverpool, at given prices, and would be glad to send them out in case lots to anyone wanting them. Had this been done, I do not think any financial loss would have been sustained. I have good grounds for saying so, for the reason that I had made arrangements with a Canadian shipper to send me fifty boxes of finnies containing 30 lb. each, and one case of haddocks and one of witches, and we adopted the method suggested above, and did not make a loss. The idea in sending the fish was that people might get to know in England that this fish could be obtained, and could see the samples, and then order for themselves. Unless anyone is prepared to be a distributing medium and buy quite a lot, this cannot be done, as the smallest amount that could be sent, I found, was a carload; otherwise we would have been prosecuting the business now. In other words, no firm could order 100 cases of fish for their own consumption; as an experiment, it would have been too risky. Then, again, the difficulties in getting refrigerator space on vessels, coupled with the very heavy freights and all other expenses, made against it; but, knowing what I do, I believe, during wartime at any rate, there is a future before Canadian fish, if it were taken hold of on the lines I have indicated. Of course in starting it one might be met with some of the difficulties and losses that Sir Charles Petrie and his firm were met with in the earlier days.

"Two years ago it was demonstrated that, providing quality was A1 and the freezing all it should be, that halibut sent from Canada could be made a success with careful handling. This was in pre-war times; and certainly since the war has caused an abnormal scarcity of fish, the prejudice that existed against frozen fish has been broken down to a very considerable extent, and now I claim that frozen halibut has proved, and is proving, a very useful commodity in the British markets, and if the same course were pursued with haddocks, finnies, fillets, and other species of Canadian fish, it would be acceptable to the British markets. If they were in the first instance dressed, split, etc., on British lines and frozen hard enough to stand what delays might ensue in shipping, and the passage across the Atlantic, I think they would prove a success and would be a very good addition to the food supply of this country."

Recent Oyster Investigations in Canada

By DR. EDWARD E. PRINCE, LL.D.

Present Distribution of the Oyster.

The oyster areas on the eastern shores of Canada, embrace the bays of the Gulf of St. Lawrence, with the exception of the Gaspe and Bonaventure shores, and extend as far as the shore of Cape Breton. They practically surround Prince Edward Island, the shores of that Island being almost a continuous series of oyster beds. South of Cape Breton oysters are scarce, and indeed for the most part are absent. The southwest shores of Nova Scotia, the Bay of Fundy shores, and the Gulf of Maine, as far south as Cape Cod, are barren of oysters. This extensive line of shore, over one thousand miles long, just referred to, though now unproductive, was probably at one time, a prolific oyster area. Oyster reefs, shell heaps, and other evidences exist to show that there was formerly an abundance of oysters along these shores, from which they are now absent.

Causes of Extinction of Beds.

What are the causes which may account for the disappearance of the oysters? On the answer to this question depends the conclusion inevitable as to the future of the existing oyster supply of Canada. If the same causes which denuded the beds at the south, are still at work, the future of the oyster beds of Canada, is problematical. It has been alleged that the shores have risen during recent geological times, and that the oysters exposed in this way to ice and winter conditions must disappear. If this be the case, such an elevation if it continues, must result in the extinction of our Atlantic oyster beds, but the contrary seems to be the fact. There is evidence that the coast is actually sinking, and that the oyster beds are growing higher in consequence. If this elevation continues, it is most favorable, though it may be under the changed conditions, cold Arctic currents will enter more readily the regions where oysters exist. If such colder conditions continue, the summer temperature requisite for oysters, 68 deg. F., may not be reached.

Respecting the salinity of the water, it is well known that oysters flourish where there is a tidal increase and decrease in the saltness of the water. Uniformity in salinity or extremes in variation are not favorable. Temperature, the necessary amount of oxygen and flowing favorable currents are essential for oysters, and it is important to know that investigations under the Biological Board, Dr. Copeland's studies in Passamaquoddy Bay, show that the temperature there is unfavorable, but in the extensive beds of Prince Edward Island, the temperature is, however, very favorable. The fact that fossil oyster beds occur around the Island, indicates that some other cause than unfavorable temperature, has been at work. Oysters can stand exposure to frost to a remarkable extent if they are partially embedded in mud, and thawed out gradually. Where masses of ice are formed, oysters may be killed by pressure, and if the bottom is soft, may be completely buried, and sometimes a heavy fall of snow will clog up shallow waters and kill, not only oysters, but even the more hardy clams.

The conditions for the welfare of oysters are very complex; thus shallow waters free from vegetation, and swept by currents in summer, are favorable, but such areas are most unfavorable in winter, and on cultivated oyster beds, the oysters are moved from the shallows before winter sets in, and placed in deeper water, a measure which, of course, is impossible on public beds, practically open to all fishermen. Sediment and saw mill refuse, and drainage materials are very harmful, and oyster propagation is impossible if a thin layer of silt is deposited on the cultch, because it prevents the fixation of the tiny oysters, and they also run danger of being smothered.

Apart from these unfavorable conditions, the main cause of the depletion of oyster beds, is improper and reckless fishing by man. Much may be done by regulations, close seasons, restrictions as to methods of fishing, size limits, etc., but the most efficient system is the method of private culture, under which system the lessee, or owner of the beds, reaps the benefit of his labor and care.

Great Productiveness of Parent Oysters.

At first sight it would seem an easy matter to restore a depleted or destroyed oyster bed, inasmuch as a good average "spawner" produces at least fifty or sixty millions of ova annually, and a careful calculation shows that an oyster bed should easily produce ten to fifteen million developed young fry for each adult oyster on such bed. If this be so, the amount of oysters should increase ten million times in five years, but this is never the case. There is a balance in nature, and if that balance is on the wrong side, extermination follows in spite of amazing fecundity. When the oyster spawns in July or August, the eggs are thrown out into the open water, and tend to sink, touching the bottom in about ten minutes if the water is still; but after ejection each egg must, of course, be fertilized, and it has been found that at least three hundred sperms are necessary in order to secure that an egg shall be fertilized during the ten minutes before it reaches the bottom of the water. If conditions are right, an egg would be fertilized in ten or fifteen minutes, and would then normally develop. As the male oyster scatters sperms haphazard, it is by no means certain that an egg is fertilized, unless the conditions are very favorable. An enormous production of eggs and sperms occurs on healthy oyster beds, and as many as 10,000 newly hatched fertilized eggs, or rather early larvae, have been counted in a bucket full of water dipped from an oyster bed.

Dangers to Young Oyster Brood.

The eggs and larvae run great risks at every moment. Apart from the physical and chemical and other conditions already referred to, many dangers threaten the oyster during the first few hours of its life. Minute crustaceans, especially copepods, vast numbers of other larval mollusks, especially in the "veliger" stage, devour young oysters, and adult oysters sucking in their food from the surrounding water, must destroy a great number of their own young, along with the other plankton. Tides must sweep vast numbers of young oysters away into unfavorable regions where they will perish, yet so successful are Nature's methods that one hundred or more young oysters have been counted on a single oyster shell, on or near an oyster bed. A young oyster must adhere to some other object or it is doomed, and the best material consists of clean oyster or clam shells called "cultch" free from slime or silt, or vegetable growths.

As the oyster grows to maturity, it is still assailed by numerous enemies, such as boring mollusks, crabs and various crustacea and starfishes, the last being most ingenious in their mode of opening and eating oysters, while storms and smothering currents carrying mud as well as deadly winter frosts, all work havoc on the oysters as they progress to maturity. Lastly, man comes and takes the few survivors.

Favorable Conditions for Oyster Beds.

From what has been said it is clear that there are at least four conditions necessary for favorable oyster propagation:

(1) Suitable cultch, or clean shell-strewn ground.
(2) A sufficient number of spawning adults of both species.
(3) Currents and conditions ensuring fertilization. The adults must be congregated near together, it is hardly necessary to say.
(4) A sufficient number of larvae must be produced to balance the enormous unavoidable mortality.

In the methods of oyster culture, certain steps are requisite for success: (1) Culling oyster, i. e., the throwing back of small, good oyster shells can be taken from the "mussel mud," when it is being dug in winter, and such shells make the best cultch, but no cultch should be deposited on oyster beds until the spatting or spawning of oysters has begun.

(2) Oysters should not be disturbed when spawning; a close season should therefore be enforced annually, to permit of the production of as many oyster eggs and larvae as possible. If a bed is very seriously depleted, then a more drastic step is necessary, i. e., the closing of the bed for several seasons. The restoration of such a bed depends upon the percentage of available oyster cultch multiplied into the available spat. If both factors are favorable, a bed will again reach its acme in five years, but if no cultch is laid down, it will take longer. The number of bushels of oysters which can be safely fished can be calculated by means of testing the yield of an average square yard of the productive area. Any number of oysters can be fished from an area if the remaining oysters produce sufficient spat to keep up the supply. If five year old oysters are marketed, and if a fifth of the product of the bed is taken each year, Nature cannot replace the loss unless artificial methods are adopted, and such a bed must decline. The market demand may be such that one-half the oysters are removed, and next year two-thirds of the remainder removed, and so on, and the process of depletion would inevitably repeat itself.

Methods to be Avoided.

For the first two years after a restored bed is opened, the yield may be double or treble its former amount, but it soon drops back to small figures. If, however no harvesting is allowed for five years, and if in five years after reopening it is found that it must be closed again, then in such a total period of ten years we see the yearly production is reduced to a minimum harvest. There is no gain in production. The bed is saved only from total extinction which would otherwise have taken place. The highest production results when oysters above a certain size are fished, and an equivalent of cultch or clean dead shells is laid down. Every adult oyster taken lessens the amount of cultch, for its own shell affords attachment for spat, and thus the chances of the young oysters are reduced.

Rotation in Harvesting Oyster Beds.

Oyster grounds may be classified as:

(1) Natural beds.
(2) Natural beds with additional areas for propagation and growth under expert care.
(3) Areas for growth only, unsuitable for propagation.
(4) Areas where oysters are stored or retained not for breeding or growing. Now the owner of an area as No. 3, must buy his oyster seed from the owner of the area of No. 2, or he must get it from No. 1. The owner of oyster bed No. 2 can produce his own seed, and need not get it from No. 1, though he might divide his area into plots. Plot "A" producing the best spat, would supply the spat for "B," "D," "E," each in successive years. No money returns can be secured till in the fifth year he crops plot "B," and markets the entire crop, and he then plants on "D" and "E," so that each bed has oysters of its own age, and "C" receives the next crop from "A."

Seeding Oyster Areas from Private and Public Beds.

From this stage forward he has an annual income, as he harvests one plot annually, and replants it from his own seed-raising ground. Such a method gives the highest returns, for the owner harvests one-fifth of his farm, and one-fifth of his growing crop.

If he fished all the areas alike, the different ages or generations of the oysters would be as on a natural bed intermixed, and propagation would not be at a maximum rate. At the best he could not harvest as much as a fifth of his crop. Efficient oyster farming resembles market gardening in some respects, but differs in needing several years to mature the first crop, and after that an annual crop is produced. For private oyster culture, seed must be obtained from natural beds in the first instance, but that if continued, would deplete the public beds, and a co-operative system for oyster farmers to mutually work a public bed is the remedy. This is difficult because the public have rights, and others than the oyster farmers might assert those rights. The danger of granting public beds for co-operative schemes, arises from the fact that capitalists might before long, own the whole thing. The rights of the public must be recognized, and the public beds clearly defined.

Decrease in Canada's Oyster Yield.

Canada's production, especially the oyster production of Prince Edward Island, has declined very seriously, and if during the past thirty years, the oyster production be averaged up for each period of five years, such a five years production now is less than one-quarter of what it was thirty years ago.

Acclimatized, Native and Imported Seed Oysters.

Owing to the great demand for oysters from the best Canadian beds U. S. oysters have been imported and transplanted, but it has been found that they will not reproduce for a long time under the new conditions, but remain dormant in northern waters, taking at least one year, in the case of Connecticut seed, to become acclimatized.

Native seed is best, and it is an interesting fact that native Canadian spat at the time when it fixes itself to the cultch, is one-quarter larger than New Jersey spat at the same stage. Moreover the superior flavor of the Prince Edward Island oysters is not attained by the imported and transplanted oysters for some time. It was thought that this exquisite flavor might be acquired after being laid down for a few weeks, but these hopes have not been realized.

The Sardine Canning Industry

By J. F. CALDER

The sardine canning industry of North America was inaugurated by Mr. Julius Wolff at Eastport, Maine, in 1876. From a small beginning the industry has steadily grown until the enormous amount of 2,500,000 cases are now packed in the State of Maine in a single year. Many and marvellous changes have taken place in the various branches of the business since Mr. Wolff opened the little cannery at Eastport. The pioneers in the business on the American side almost all became wealthy. There was no difficulty in procuring the small quantities of fish needed by them from the weirs in Charlotte Country, New Brunswick, and Washington County, Maine. Very high prices were obtained for the pack of the first few years. These conditions made it possible for those who were at that time engaged in the industry to make fabulous profits.

As already stated the canneries receive their supply of sardine herring from the herring weirs. It is quite generally supposed that these weirs are an innovation which were brought about as a result of the great demand for small herring for sardine canning purposes. Such is not the case. The Charlotte County weir fishery started at about 1830 and was in a flourishing condition before canning operation began. Previous to the advent of the canneries the small herring from the weirs were used for smoking purposes. Very high prices were then paid for smoked herring, the weir owners smoked their own catches, and were carrying on a very successful business. It is true that as a result of the great demand for herring at the canneries the number and efficiency of the weirs have greatly increased. Yet at the same time it is a mistaken idea that the sardine canning industry is responsible for the herring weir.

The canneries extend from Black's Harbour, New Brunswick, to Boston, Massachusetts. The greater portion of the American pack, however, is put up in the vicinity of East port, Maine. At the present time there are two sardine canneries operating in New Brunswick, Messrs. Connors Bros., Black's Harbour, and the Lane, Libby Fisheries, Chamcook. Both of these firms are well and favourably known to the fish trade of Canada; Messrs. Connors Bros. have been operating for more than twenty years and the Lane, Libby Fisheries have recently taken over the large and splendidly equipped plant of the Canadian Sardine Company, Chamcook. Roughly speaking five per cent only is put up in Canada. The balance of the pack, of course, is put up in the American canneries. All of the sardine herring that are used at the Canadian canneries are from Canadian weirs. About three-quarters of the American pack are from the Canadian side also.

are the small ones which left the fall before. Another run are those that are spawned in September and October. In a very immature state they are found in great quantities during the latter part of the fall, but are not fit for sardines until the following spring. This run frequents the inshore sardine weirs for the one season only.

The process of canning sardines is very intricate and it is quite impossible in a short article like this to thoroughly explain all of its many details. The primitive canneries consisted of small wooden buildings with very little machinery and where practically everything was done by hand. The modern cannery is a large concrete manufacturing establishment filled with labour saving machinery and devices of many kinds. The first cans were hand made. This process necessitated the employment of many hands in the operation of the dies for cutting out the tins, shaping and soldering the cans. After the fish were packed in the cans the tops were solderd in them by a crew of men who were known as the "sealers." Three separate gangs of help were employed in can making—tin cutters—the seamers, boys who soldered the ends of the tin together, adjusted the bottom of the can to it's place and packed them in cases, and lastly the "can makers," the men who soldered the bottoms. All of this labour was performed as piece work, and good pay was made by all who were engaged therein. Some sixteen years ago machines were used for the first time in making cans and closing them in after they were packed. This method very quickly displaced the hand work of the past. At the present time a well equipped sardine plant is a labyrinth of machinery.

LANE, LIBBY FISHERIES, CHAMCOOK, N.B.

It is only very small herring that are used for sardines. I have heard a great deal of discussion as to the age of such fish, and make bold to express my own views thereon, although they may or not agree with those of others. Sardine herring are all under a year and a half of age; as a matter fact "the runs" of such fish vary from those which are about 5 months old to the maximum age limit of one and one half years. Perhaps, it would not be amiss for me to give reasons for such views. Quite frequently during the latter part of April or early in May the waters in inshore sections of Charlotte County are fairly alive with tiny herring. These are not over one inch in length, nearly transparent and so undeveloped that their eyes protrude to such an extent that they are called "eyeballs" by the fishermen. The schools keep together and grow very rapidly; their growth from month to month is very apparent. About the first of August fishermen will begin to speculate as to the time when they will be large enough to be canned. Along in September the canneries will begin to use them. As they were spawned in April they are then five months old. The canneries continue using them for the remainder of the season. Next spring the weirs will take a larger run of herring; undoubtedly they

Each cannery employs from three to eight carrying boats to bring fish from the weirs. In some cases the boats are owned by the canners, but in most cases they are the property of the man who runs them. High freight rates are paid, and the boatmen derive good incomes from this source. I may say these boatmen occupy responsible positions with the firms who employ them, as they are purchasing agents to a very large extent, and must be not only good boatmen, but men of good business judgment and ability. They also have to invest a large amount of money in the boats, and well earn all they receive. If Mr. Wolff were alive to-day and could come to these waters and view the splendid fleet of sardine carriers all equipped with large gasoline engines, and then compare them with the small sail boats which were employed by him in 1876, he could not fail to be impressed with the marvellous development that has taken place in this respect. The original sardine boat had a capacity of some seven or eight hogsheads. The present fleet carries from forty to seventy hogsheads each. Under former conditions very frequently sardines would be either altogether or partially destroyed before reaching the canneries. They are now pickled salted in water tight tanks in the carrying boats before they are fairly dead, and are quickly conveyed to the canneries. This salted method is a vast improvement over the old state of affairs. For many years sardines were carried in the boats without being salted, and very often they would seriously deteriorate before being unloaded. As they are now salted as they are taken from the water all nutritive qualities are preserved. Then again the water tight tanks in the boats prevent the fish from coming in contact with bilge water, as was the case in former days.

There are two methods of putting up canned sardines. One is known as the frying process and the other as the baking or rather at the present time steaming process. Sardines packed by the former process are fried in oil, while by the latter method they are either baked in reel ovens or cooked by steam, as the case may be. All cans, no matter by which method the fish have been cooked, are filled with oil after the fish are packed in them. I would briefly describe the two processes, beginning with the baking or steaming method. The fish are hoisted from the boats in a wooden barrel by means of a steam hoisting engine. They are carried about twenty feet above the top of the wharf and emptied into a perforated sluice-way, which in turn empties into the pickling and washing tanks on the lower floor of the cannery. A large steam pump is consequently flushing the sluice-way with water which floats the fish down the incline and into the pickling tanks. Loose scales are washed from the fish while passing along the sluice-way, the refuse falling to the wharf below. The tanks are partially filled with strong pickle. The fish are allowed to remain in them for a short time, the length of which depends upon the size and condition of the fish. They are washed out of the pickle with scoop nets, placed in small baskets which hold about a bucket each, and put on an elevator to be carried to the flaking room on the next floor above. The flakes are about two feet wide and three feet long, made of heavy wire cloth with a sheet iron frame around them. Previous to six or seven years ago "flaking" was done by hand. Flaking consists of spreading the fish in rows on the flakes. In order that all portions of the fish be thoroughly dried in the process through which it has to pass, it is necessary that they be separated from each other on the flakes. It can readily be seen that to perform such work by hand required a large number of help and cost a lot for wages. The flaking machine now does the work at a nominal cost. The flaking machine is a very ingenious contrivance. It is an iron drum about two feet in diameter and two feet long — the width of a flake — with a series of pockets running it's entire length. The drum turns on a shaft. The sardines are placed in a hopper which empties them into the pockets on the drum. As the drum revolves they are spread on the flakes — the contents from each pocket making a row on the flake and the distance between the pockets being so arranged as to bring each row just clear of its predecessor. As fast as the flakes are filled they are placed in "racks." Racks are really carrying horses on wheels and used for the purpose of conveying the flakes of fish to other rooms for further processing. Each rack holds about twenty-five flakes. As fast as a rack is filled it is wheeled into the steaming room.

SEALING MACHINE, LANE, LIBBY FISHERIES.

(Continued in the Next Issue).

SOME DEEP SEA FISHERMEN'S EXPERIENCES

(By R. P. GETTY.)

"It's an adventuresome life, sir, which we deep-sea fishermen have to lead, and no wonder. When men are forced to make or take in sail in storms of sleet and snow with the wind a blowin' big guns from God knows where. When youngsters, and oldsters, too, must jump aloft in a welter of canvas pullin' and flappin' hard enough to knock the daylight out of you. When there is reefin' and furlin' sail with booms a screechin' and sheet blocks bangin' to beat the band at every lurch of your vessel. When spars crack and tackle snaps, and there's splicin' to do in weather that buries your lee under tons of green water—I tell you, sir, that when men are 'bliged to do these things most every day for days at a time, deep-sea fishin' is no cinch I'd let you know." The speaker hailed from Lunenburg, Nova Scotia, but like so many other fishermen of Canada, had gone down to Gloucester, Massachusetts, to try his luck on one of the white winged schooners of this famous port. Ten days ago his vessel had returned from a shacking cruise with 60,000 pounds of salted cod, and 25,000 pounds of fresh fish safely stowed, and he had utilized the time that must elapse before she was fitted out for the next trip, to run up home and see the good wife and the kiddies.

We met him ambling about the wharves of Yarmouth waiting for the Dominion Atlantic Steamer to take him to the States again, and like most men of his calling he was perfectly willing for a gamm, in fact, for anything else that might turn up. He led us over to a string piece where he sat down with his feet dangling in front of him, and proceeded to light his short-stemmed pipe. Then he began again. "Why man alive, that's the trouble with most of you lubber folks. You don't seem to understand this deep fishin' life in no way whatsoever. You don't comprehend what we fishermen may have to go through at any old time in the way of experiences. I had one that well-nigh finished me when I was a young man, and I'm only forty now. It was this way, sir. We were off the coast of Newfoundland at St. Peter's Bank when me and my mate got adrift from our vessel in a fishin' dory. For over five long solitary days and nights we did not have one particle of food to pass our lips—we were starvin' to death by inches. Think of that, man! And the only water to drink the few drops we collected in our oilskins.

And then my mate died. Not as strong as me he must have been. And I shall never forget; not to my dying day, the thoughts that flashed through my mind as I pulled his body aft and threw my coat over the dead man's face. My God! You cannot picture to yourself my feelin's at the time. There in front of me, standing out on a big blackboard like the sort we used at school, and glaring at me in big white chalk letters that struck through to my very soul, was a list of each sin, of all the mean things I had ever done in my life, each sin being erased as its meanin' branded itself in, and another taking its horrible place. Was I afraid, you ask? No sir, not afraid, but chastened ever since. There is nothing about such experiences to make a man feel particularly glad afterward when he thinks concerning it. I remember nothing more. They told me later that when a passing schooner picked me up I was on my knees. Perhaps I was. I remember I felt like it."

"But such experiences are unusual?" we interposed, as he finished his dramatic recital. "They certainly cannot occur very often."

He frowned at the thought of such a suggestion.

"Unusual? I should say not when things are happening at any old time. What about the schooner Blanche from the States?"

He was evidently warming up as he proceeded.

"We were up in the Hutchins Strait so called, off the coast of Labrador, with no water to drink, for our scuttle butts were empty. And when the crew were about to lower dories to seek a supply a bad storm came up with a rough and running sea which quickly surrounded our vessel with an extensive ice floe.

Just then the lookout spied what appeared to be a pond of water lying to leeward on the ice, and, taking no account of any danger, four dories were immediately launched, and eight men with axes set out to secure some water, and at the same time lay in a fresh supply of ice for our return trip.

Ed. Hanson and Mike McCullough were in the first dory to land, and, springing on the ice, broke for the pond, lying flat as they reached it to drink the water.

Suddenly one of the men in the rear boats saw the ice begin to rise, and yelled to the boys to make a run for their dory.

McCullough heard just in time, and with a cry to Hanson, turned and sprang into his boat.

Meanwhile, we in the other dories looked on with eyes riveted to the spot, for slowly the great white mass began to rise with poor Hanson left helpless, all the while rising higher and higher above the sea level.

There was now no doubt about it. It was the berg itself which was slowly but surely turning over, and like a crazed man Hanson with an axe was choppin' and choppin' in an endeavor to get some hold as he kept going upwards.

'My God!' yelled our skipper. 'Poor Hanson's gone for sure.'

'No,' replied the men. 'He's up! He's up!'

And sure enough our boy was really rising higher and higher, now gaining a foot, now slipping back, now pushing upwards once more on the slippery ice, while the angry waves below, like so many ravenous wolves, kept springing up to reach their prey.

Fully fifteen minutes we watched him. Hanson in his struggles growing smaller and smaller, and the ice higher and higher, when at last, with a sort of shake, the huge berg settled, and there, at least two hundred feet above the water, and clingin' to its slippery edge, and looking no bigger 'n a crow was Hanson. And full well the rest of us realized that a leap from that height meant certain death.

'For God's sake, man, don't jump! You must slide, Hanson, slide!' yelled our skipper.

And then the most frightful thing happened. We were strainin' our eyes to see what the poor fellow would do when to our listening ears came that sudden sharp crack and the ominous low rumble which always accompany an ice break of any proportions.

'The ice is breaking!' shouted our skipper. 'Slide, Hanson, before I shoot!'

And in keeping with these words he hauled out his revolver, and pointed the weapon up in the air, then pulled the trigger.

A loud report reverberated which Hanson must have heard, and at the same time realized what the next shot meant. At any rate the following instant he flung himself feet first over the jagged ice, and down he came at frightful speed, and landed in a huddled heap in the water at the foot of the berg.

A dory picked him up, and then began the fight for rescue. And none too soon, for scarcely had the little boat pounded herself away from the berg, and reached our schooner, and Hanson been lifted on board, than with a thundering roar that might have been heard miles away, that is, if there had been anybody but our crew to hear it in that frozen waste, the huge mountain of ice came tumbling down, now crunching, now crashing, now crushing, while everything on board our schooner was covered with portions of its shattered fragments.

Poor Hanson was terribly bruised, but thank God! he was safe. And later we obtained water and ice sufficient to last us for many a day to come.

(Continued in the Next Issue.)

Things a Fisherman Might Like to Know

(By MARGARET McLAREN.)

When Captain Cook first visited Tahiti, he found the natives used nails made of wood, shell, bone and stone. He showed them some iron nails which greatly pleased them, but he could not make them understand that the nails were made of iron, because these savages could not see the sense of anything that would not apply to their advantage in the ways which their own minds had figured out as being necessary. Therefore, insisting that the iron nails were shoots of some unknown hard wood, and anxious to secure an immediate increase of such a commodity, they planted the nails in their gardens, where, of course, they served no purpose but to become rusty and useless. There is a moral in this tale. A moral which applies to the fisherman who violates the laws which have for their basis scientific knowledge, and which have been framed for the benefit of the fisherman of the present and future if he would but obey them.

For instance, he who takes a lobster below the standard size, or out of season is guilty of the crime of depriving other fishermen of their share in twenty-one thousand six hundred and ninety-nine (21,699) lobsters which they might have gotten out of the season in due course if the poacher had been less rapacious.

We see in the press from time to time letters on the question of the lobster season in different localities, from fishermen whose aim of course is an honest one, they being chiefly desirous of catching and marketing a greater quantity of lobsters, thus ensuring a better living for those dependent on them. This is a bright, but scientific principle calls for a close season in certain localities, at given times, solely for the protection of all fishermen because this law ensures a continuance of their commodity (i. e., the lobster) in the different localities

(Continued on Page 190.)

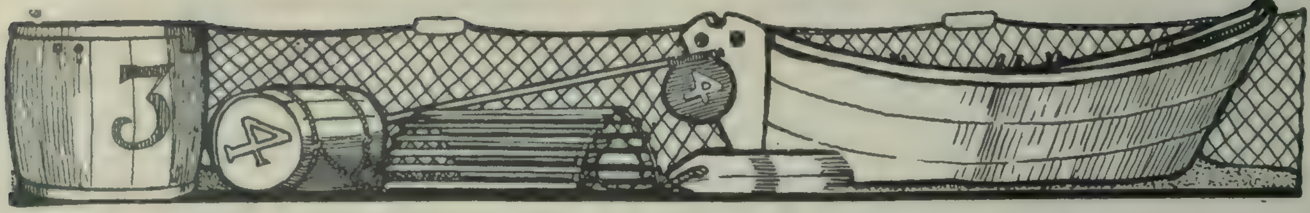
WHO'S WHO IN THE FISHING WORLD.

Mr. J. F. Calder, whose interesting and instructive article on the Sardine Canning Industry appears in this issue, was born in Campobello, New Brunswick, in 1870. At an early age he took to fishing, and toiled for a livelihood on the Atlantic Banks and the waters of the Bay of Fundy. After several years at actual fisherman's work, he devoted his attention to lobster and sardine canning, and for eight years previous to 1907 was manager of the E. A. Holmes Company's Cannery at Campobello.

The experience which he gained in the fisheries of the vicinity fitted him admirably for the post of Inspector of Fisheries for New Brunswick District No. 1—to which he was appointed in 1907, and which he now holds.

Mr. Calder takes a lively interest in the affairs of Charlotte—his home county—and for many years acted as President of the Charlotte County Fish Fair Association. The duties of Fishery Inspector in a thriving fishing district keep him pretty busy, but as Director of the Charlotte County Agricultural Society and Superintendent of the Fisheries Department at the St. Stephen Fair, he is able to promote the welfare of the fisheries in capacities outside of his official duties.

Mr. Calder is an official, intelligent, courteous and obliging, and his article on Sardine Canning in this number can be read with the knowledge that it comes from the pen of a man who knows what he is writing about.



THE ATLANTIC FISHERIES

ARICHAT, C.B.

(Special Correspondence.)

The ice cleared out of Arichat by the 16th of April, but the Straits of Canso are still blocked. It will be late this spring before the vessels will get through to the Magdalen Islands for their bait. The Lunenburg fleet took their first trip in fresh this spring, and sold largely in Halifax.

IN NEWFOUNDLAND.

(From Our Own Correspondent.)

The Assembly has been in session for three weeks, and it is a noteworthy feature that fishery matters have been receiving a very large share of attention. The Governor's Speech opened the way to a good deal of discussion on the shipping problem; and one of the best reviews of the subject was made by the Hon. A. F. Goodridge in the Legislative Council. Mr. Goodridge's discussion of the tonnage problem brought out the fact that he does not seem at all sorry that the large steam sealing fleet had been got rid of. He declared that he was never favorably disposed to the introduction of steam into our seal fishery. The Hon. Mr. Harvey, we believe, made the statement that the steel ships were "never intended as sealers at all"; but that the ships were built primarily with a view to engaging in the fruit trade. This seems to us an astounding statement, in view of the fact that one of the large steamers, the "Florizel" was withdrawn from the regular New York-St. John's service and sent to the fishery. But Mr. Harvey presumably knows the inner story of the fleet better than we do.

The matter of ship-building has become a live issue; and we understand that, through the initiative of Mr. Coaker, the President of the Fishermen's Protective, and Member for Twillingate, a Bill providing a satisfactory bonus for ship-building will be introduced during the session. We have already discussed this matter; and we notice that Mr. Lake, of Fortune, is keeping the subject persistently before the public. His arguments are really incontrovertible; and we hope that his efforts for the launching out into the industry will meet with the success they deserve. We have abundance of the best quality timber and have plenty of shipwrights; but it may be necessary to bring in some expert modellers and master builders. We understand that Mr. Coaker has already made arrangements to this effect for the proposed industry at the new depot of the Union Company shortly to be erected at Catalina. The outcome of this venture will be watched with interest.

There is no doubting that we are face to face with a great shipping shortage. We have comparatively few local carriers; and we have for many years been dependent upon foreign vessels to market our fish products. Several of our firms have recently been buying in the United States; and the Gloucester Times says that "several agents of coasting and fish-trading firms have been visiting the United States with a view to purchasing vessels for the Newfoundland trade.

The Boston Fish Gazette announces the following sales to parties in Newfoundland:

Nellie Dixon, owned by Leslie M. Akers, of East Boston, has been sold to a Newfoundland firm. The schooner was built in Boston, in 1880, and is 111 tons gross.

Preceptor, formerly owned by Capt. Jerome McDonald, was recently sold to George Buffet, of Grand Bank, N.F. The Preceptor was built at Essex, in 1899, is 123 tons gross and will be used in the bank fishery to replace a schooner recently lost on the South-West Coast.

Lucania, of Provincetown, formerly owned by Sylvanus Smith, of Boston, has also been sold to the Newfoundland trade. This schooner is 147 tons gross, and was built in 1904.

If we are correctly informed, this vessel has been purchased by the Messrs. Norris, of Three Arms, Notre Dame Bay, and has been fitted with a pair of engines. The Messrs. Norris do an extensive fishing and trading business on the North East Coast; and the new purchase will be a valuable addition to the great northern fleet.

Independence has been purchased by Mr. J. W. Hiscocks, of Brigus, Conception Bay. This is a large schooner of 145 tons and will likely be used in the fish carrying trade. Mr. Hiscock carries on an extensive Labrador business, with headquarters at Smoky. His exports last season were something in the vicinity of 20,000 quintals.

Several schooners have been purchased within the last few weeks in the Maritime Provinces; some of these will be used as bankers, while others will be used in the transatlantic carrying trade.

The Seal Fishery.

It was thought that the sale of our steam sealing fleet would have a disastrous effect on the seal fishery, as fleet had been reduced nearly 60 per cent in men and tonnage; but it has proved a blessing in disguise. The fishery promises to be one of the most successful on record, and the quality of seals is the best ever reported since the introduction of steam into the industry. The vessels which have returned are log loaded, and the returns for men and owners has been most satisfactory.

The Florizel hails for the heaviest turn out ever brought into port, being equal to 51,000 young harps. The vessels "at the front" found seals fairly plentiful, and the northern catch is reported as follows:

Florizel	46,000
Neptune	33,000
Eagle	31,000
Sable I	23,000

Bloodhound	22,000
Terra Nova	27,000
Erik	20,000
Sam Blandford	19,000
	221,000

Reports from the Gulf are not so satisfactory; but it is believed that all the vessels operating there will get "saving" trips. The catch will, from present indications, approximate 260,000 pelts.

The price paid for seals is the highest on record; the crew of the Bloodhound receiving $6.00 per cwt.

The value of the voyage to owners and crews may be gleaned from the turn out of the Sable I., owned by Farquhar of Halifax, but with a Newfoundland crew, under the command of Captain Jacob Kean. The Sable I. turned out 23.707 young harps, 104 old harps; and 5 bedlamers, weighing 577 tons, valued at $63,666.09. The crew shared $116.60 per man, the balance going to the credit of the ship and owners.

The Sealing Fleet was made up of the following ships:

At the Front.

	Tonnage.	Men.
Florizel; Capt. A. Keen; owners, Bowring Bros.	3,080	270
Eagle; Capt. E. Bishop; owners, Bowring Bros.	764	180
Sam Blandford; Capt. W. C. Winsor; owners, Job Bros.	919	189
Bloodhound; Capt. G. Whitely; owners, Baine, Johnstone & Co.	542	166
Erik; Capt. N. Kean; owners, Jas. Baird, Ltd.	583	139
Sable I.; Capt. J. Kean; owners, Farquhar & Co.	734	130

In the Gulf.

Viking; Capt. W. Bartlett, Sr.; owners, Bowring Bros.	586	160
Ranger; Capt. W. Bartlett, Jr.; owners, Bowring Bros.	520	150
Diana; Capt. D. Martin; owners, Jas Baird, Ltd.	473	145
Seal; Capt. C. Murley; owners, Farquhar & Co.	608	120

In addition to our local fleet, the Norwegian steamer Njord, Capt. Olsen sailed from Louisbourg with a Newfoundland crew. They have a different "lay" from our Newfoundland ships, each man receiving ten dollars per month and ten dollars additional for each thousand seals caught; Newfoundland crews outfitting at home get one-third of the net proceeds of the voyage.

One sailing vessel, the J. R. Bradely, belonging to the firm of Gorton & Pew, of Gloucester, Mass, sailed from Channel.

In consequence of the casualties which have occurred within recent years, every Newfoundland vessel is equipped with Marconi; and an excellent arrangement was effected this season between the Government and the Marconi Co. by which ships were reported every evening, giving their position and other necessary particulars. This has the effect of relieving the anxiety of those whose friends were out to the fishery, and kept the owners in with the masters. It has worked splendidly, and is a most commendable innovation.

The future of the seal fishery is now a matter of serious discussion both in the press and in the House of Assembly; and Mr. Coaker has advocated the debarring of large vessels than those now actually engaged in the fishery. In the Upper House the Hon. A. F. Goodridge in replying to the Governor's Address seems to have some such views; but we cannot say definitely as to what Mr. Goodridge's views are.

The Mail and Advocate, the official organ of the F. P. U. in an editorial some time ago says in this connection:

"It is apparent that the steel sealing fleet will be withdrawn from the sealing venture; the wooden ship will again come to the front. The once splendid fleet of 25 wooden ships has been reduced to 8—the chief cause being the introduction of large steel ships. Since these have been sold, the time is now opportune to enact legislation to prevent any ships larger than the Sagona from engaging in the seal fishery. The days of the motor sealing schooner may not be as far distant as one would imagine. Motor schooners have cruised the Arctic Ocean successfully; and there is no reason why they should not be successful as sealers."

The introduction of the motor sealing schooner would have the direct effect of stimulating interest in the seal fishery; and it would revive the good old days when some 10,000 men found employment during the winter months in connection with this great industry. The season now closing has demonstrated that the wooden vessel is just as satisfactory as the steel ship; and there is the added advantage of the smaller outlay for outfitting.

It will perhaps taken time to wean our people from their conservative methods; but we believe that ere long we shall see a large fleet of well-powered motor vessels engaged in the Newfoundland trade. These vessels can all be built in the country, if the Government will provide a substantial bounty. We shall thus be able to retain in circulation here tens of thousands of dollars which now find their way to outside agencies in the purchase of vessels. It has been argued that we can buy outside more cheaply than we can build; but we have never seen any valid argument to prove this. We can understand that under existing conditions, that the work takes longer to accomplish locally; but were sufficient inducement given to builders this would be no longer true. The introduction of up-to-date methods in shipyards would change all this. There is no doubting the fact that we can, under improved conditions compete with outsiders in the matter of construction both as regards style and workmanship.

The Herring Fishery.

The fall and winter herring fishery, both South and North was the most successful in years; but it would seem that some of our exporting firms did not fare so well as they should have. There is no doubting the fact that quite a lot of the Scotch pack was not up to the requirements of the American market owing to improper salting and want of uniformity in the quality of the herring. A New York firm writes that some of the pack—"large" and "fulls"—had only two layers on top, with the milt and roe in the fish. It says that it is useless to look for large sales or get the confidence of the trade when such methods are persisted in. The herring which were up to requirements sold well; but at present writing the price of Scotch pack (Newfoundland) has declined. This is regrettable; and our people will have to get down to real business if they wish to retain their hold on the American market. There is something radically wrong with our inspection system; and we hope that the Government will see that the defects are remedied and speedily.

The New York Fishing Gazette says: "That the herring eating public cannot and will not accept poorly cured Newfoundland herring in lieu of superior foreign goods is plainly manifested by the present condition of the market in New York for Scotch-packed goods.

The average barrel of Newfoundland herring brings $11 to $13, or perhaps less, while the superior packed goods are saleable at from $14 to $17, or even a trifle higher. New York operators who are familiar with this class of fish appear to recognize the failure of the packers to properly cure their fish. The cold weather of the sections where it is put up is largely responsible for this condition, it is said. . . There is evidence that some barrels in which the fish are packed do not hold the pickle. These conditions appear to have concerned operators who have dealt in Newfoundland barrels, for the handlers are fewer now than a year ago. Split and round herring are in fair demand and prices are strongly maintained."

Twenty-one vessels, according to the Western Star, Curling, N. F., took away from Bonne Bay from the 1st of January to the close of the season 16,168 barrels frozen, 4,040 barrels pickled, 3,547 barrels salt bulk, and 2,601 barrels Scotch cured herring. The total shipment of herring from Bonne Bay for the season amounted to 68,573 barrels. The high prices paid for herring were due largely to the smaller firms and independent buyers being in the market for larger quantities. A correspondent from Bonne Bay states that the efforts of larger buyers to depress prices were unsuccessful, as the fishermen have thoroughly awakened to the fact that $1.25 a barrel is not sufficient to make both ends meet, considering the big advance in recent years of all kinds of fishing gear.

The American Consul at Bay of Island writes to this Department the following regarding the Western shore herring fishery: "For many years the bulk of the herring caught on the West Coast of Newfoundland has been taken by a few New England concerns. Formerly the fishermen were largely dependent on the American vessels which provided their equipment, but now they buy their gear where they can get the best prices, with the result that a large part of the catch has been turned into Canadian trade channels. The American fishery, which used to be so important in these waters, has thus all but ceased."

Active preparations are now going on all along the coast for the Spring and Summer herring fishery; and as herring are reported fairly plentiful in certain sections, the fishermen are likely to reap an abundant harvest. Men who for the past few years have been devoting their attention to the lobster fishery will now take up the prosecution of the herring fishery, as they hope to find the business more remunerative.

Mr. John F. Murphy, of the Newfoundland-American Packing Company, is now touring Placentia and Fortune Bays in connection with the herring industry, and will buy all the herring available, paying the highest price. In order to ensure a good pack, the Company will furnish suitable barrels, and nothing but the best quality will be packed. It is said that one cooperage firm in the city has already had a large order for a specially made package. This will have the effect of reassuring the buyers abroad of the quality of the article dealt in.

The Newfoundland-American Packing Company.

This organization is now erecting an extensive plant at Bay Bulls, and will, as stated in our former contribution regarding recent developments, operate very extensively. The site is an admirable one, and it offers exceptional facilities for large operations. It is located in the centre of a large fishing district, within easy reach of St. John's, thus affording easy means of foreign shipments being made regularly.

The Vice-President and Manager of the Company, Mr. E. St. John Howley, is a St. John's boy who has had a large experience in the United States with the handling of fish products. He is very optimistic regarding the prospects of the new venture; and his motto will be "fair methods and honest packing." He has an expert packer as Inspector of the concern, Mr. J. F. Murphy, who will give his personal attention to the packing of herring.

The Company has already made a beginning in "kippers" and "bloaters," and the goods placed on the local market have found a ready sale. It has been found impossible to meet the demand. When the Company is in full swing there will be no further importations of smoked fish, haddies, or other such commodities. The knell of the "Digby Chicken" has been sounded, and our people will now patronize the home products.

Other Developments.

The Union Export and Trading Company will soon begin the erection of an extensive plant at Catalina, and will engage in the manufacture of boneless cod and other products. It will also do an extensive business in the utilization of fish offal and other material which has hitherto been neglected. The waste from our fisheries in the past has been enormous. The Union Company will utilize all the available waste and thus enable our fishermen to add to their incomes.

The turbot fishery seems to be coming to the front; and we believe the development of this fishery will have far-reaching results. Recently a St. John's firm has taken up the matter seriously, as may be gleaned from the following correspondence which has been published in the local press:—

"We are indebted to Mr. Walter Duff, of the Fishery Board of Scotland, for introduction to yourself. Mr. Duff was out here two years ago at the special request of the British and Newfoundland Governments to make a report on the future prospects of our local fisheries.

"Since Mr. Duff's visit here the extension of our fisheries by motor boats has developed a new industry that is now assuming large proportions. In one large locality, about fifteen miles from land, at a depth of two thousand feet, we find very large quantities of turbot. During the past season from 3,000 to 5,000 barrels of this turbot have been secured and salted by our fishermen. We find a fairly good market for it among the Canadian population at Quebec. I am sending you a barrel of this turbot by the SS. "Durango" of the Furness-Withy Co.'s Line, sailing from here direct to Liverpool. Mr. Duff writes me that this fish is altogether too good to be put up salted, and that we should be shipping it fresh to England.

"There is no fresh turbot to be had at this season, so I am doing the next best thing in forwarding you this sample of the salted turbot. You will get an idea of the size and quality of the fish. What I want to know for certain is that there is an assured market for the fish, and I want to follow out the most approved way in getting the fresh fish to market. Our fishing operations start about June, and this turbot is caught during the summer right up to November."

We shall watch the development in the turbot fishery with considerable interest, as it is possible to supply a good quantity of it. The writer of this letter seemingly writes of the turbot grounds of Trinity Bay; but there are other grounds where turbot may be caught equally as advantageously, viz., in Fortune Bay. The Messrs. Cluett, of Belloram, have been engaged in the turbot fishery for the past three or four years; and from what we learn, they have met with fair success, finding a ready market in North Sydney.

Mr. Verran, of Placentia, has recently been experimenting with the canning of caplin. This was tried some years ago by Capt. Golder, at Harbor Grace. The process adopted by Mr. Golder was similar to that used in tinning sardines: the fish were slightly smoked, and put up in olive oil. Mr. Golder's experiment was not a financial success; but the article put up was superior to anything in the tinned fish line that we have ever tasted. The writer used these caplin at repeated intervals, and it seems a pity that a market could not be found for the product. Without doubt, the failure of Mr. Golder's experiment was due to the expensive manner in which the caplin were put in.

Mr. Verran's experiment is presumably on more economical lines, and he should be able to get the product on the market. The Trade Review in a recent issue says: "A gentleman who lately visited Placentia is quite enthusiastic over Mr. Verran's experiment. Mr. Verran opened a tin of caplin that had been put up one year and eight months ago, and the caplin were just as fresh as when taken out of the water." The editor also tells us his own experience with a sample furnished by Mr. Verran: "The caplin only required to be warmed in a pan with a little butter thrown in. Thursday evening we had them for tea, and a more delicious fish we have never tasted; they had the same taste as if they had been taken out of the sea the same day."

Caplin are the most abundant fish in our waters; and they "land" invariably during the month of June. They are found in such enormous quantities that they may be purchased on the beach at ten cents a barrel. The writer has known instances when they were sold at forty cents a car load!

The Messrs. Lake, of Fortune, F.B., have been putting up an excellent article in the way of lightly smoked dry caplin for some years, and we understand that the business has been fairly successful. Lake's Caplin are sold in handy cartons at 10 cents retail.

We believe that if Mr. Verran's product could be placed with Canadian or American grocery stores, an excellent demand might be created.

Codfish.

The winter fishery on the South Coast is far behind last year's catch; and the banking fleet will have small averages. The high liner is said to be Capt. Thorn, of Grand Bank, who hails for 600 quintals. The weather all through the fishing season has been unusually stormy, and it was impossible for vessels to get on the ground. Recent advices state that schools of very large fish have struck in around Channel and Rose Blanche, but that stormy weather prevented the skiffs and bankers from setting their gear. A report received from Mr. Furneaux, Customs' Officer at Rose Blanche, gives the catch of codfish between Rose Blanche and Harbor LeCou up to March 25th at 5,410 qtls. During the week ending on the date given, no fishing had been done owing to unfavorable weather, and all the schooners which left for the grounds had to return on account of drift ice.

Twelve boats, 65 dories and skiffs, and 77 vessels were then operating. Bait was fairly plentiful, and it is hoped that all the fleet will secure saving voyages, The banking vessels will all have returned ere this is published, doubtless, and they will then outfit for the Gulf and Bank fisheries.

Several losses have been reported this season from the Western Shore — the largest number, we believe, for some years, though happily there was little loss of life.

The Alma Harris was sunk in collision with the Stanley and Frank, and the crew were rescued by the Metamora, Captain John Lewis. Both vessels belonged to Fortune Bay, the former hailed from Grand Bank, the latter is from Stones Cove.

The George Rose, also of Grand Bank, drove ashore at Rose Blanche in a gale of westerly wind and became a total wreck. The crew got ashore in dories. The schooner had 600 quintals of fish on board, and it is thought that none of it was salved.

The Natoma, of St. Jacques, owned by Young Brothers, also went ashore; but she has been refloated by diver Taylor, and has been taken to St. Pierre for repairs. The Natoma had about 300 quintals of fish.

The short Western Shore catch may have an influence on the local market which has been quite inactive for some time. Several small cargoes have been shipped during the month, and the S. S. Noreg took 22,000 quintals during the month. The Noreg has been reported as arriving safely at Alicante.

In connection with the exportation of codfish, the Trade Review says that the tonnage shortage has not been such a drawback as some people are inclined to believe. Were it not for the scarcity of carriers, the Spanish, Portuguese, and other markets would have been glutted with fish, with a consequent sharp decline in price. The fish is gong out slowly; and even with this, the prices abroad are lowering. A message from Oporto to the Marine Department on March 31, gave the prices as 40 to 42 shillings for large, and 37 to 38 shillings for small.

The most serious difficulty which our exporters have to face is the high freight rates. These have advanced all round; and there seems to be no prospect of a decline for some time to come.

The only foreign market which is attractive is Brazil which is taking all the fish we can send, and paying good prices for it. This market is likely to keep the price up, and we shall not be met with any Norwegian competition this season, as the Norwegian catch has been rather short. Recent advices to our Customs Department state:

April 3rd, 1916.	
Loffoden	10,700,000
All others	21,500,000
Total	32,200,000
April 7th, 1915.	
Loffoden	13,200,000
All others	29,700,000
Total	42,900,000

Spain has been taking a good deal of fish, as will be seen from the subjoined statement of exports; the Portuguese market has been affected by the recent entry of Portugal into the war theatre; Italy is buying less fish; and the Greek markets are by no means as satisfactory as we would wish. The following notice regarding shipments to Greece has recently been issued to the Board of Trade by the Customs' Department:

"You will be good enough to inform exporters that the export of fish to Greece will not be permitted, except under a license, expressly approved by telegram from His Majesty's Government, and such license must be obtained in advance from the Customs after any commercial transaction is completed with the Greek market."

Quite a large quantity of fish has been sent to England; and from the Western Star we learn that a new departure "in connection with the fisheries worthy of special notice is the exportation of codfish to Ireland; and Gloucester bids fair to lose the hold it had around the West Coast on the industry, the prices being much higher than the American buyer seemed disposed to pay." It may be said in explanation of this that Gorton & Pew, and Cunningham & Thompson, of Gloucester, have had practically a monopoly of the green fish trade on the coast for some years.

There is a good deal of anxiety at present about the possibly of successfully marketing the stocks of "Soft" Labrador fish that are now held by certain dealers in St. John's. It is said that one northern dealer who had several thousand quintals, for which he refused $6.40 last fall, tried to sell recently for $4.75, but he could not find a purchaser.

The Oil Markets.

There is little cod oil in the market; the largest stock is held by the Union Trading Company, who sold some days ago a quantity for $160 per tun. This is a very high price; and the holders seem to think that it will still soar. Refined Cod Liver Oil has gone to $2.50 per gallon; and the demand is good at the present time. It is quite probable that the number of refineries will be increased this year. We hope, however, that the business will not be overdone, as it was some years ago, when refined oil became almost unsaleable. Many of the small refiners had their fingers badly burned.

It is a rather remarkable fact that we have a propensity to overdo things in some of our ventures. People, especially the small dealers in the outports, do not seem to realize that markets are very fickle; and that buyers are fully cognizant of what is being done locally is very much in evidence nowadays. There is every indication that we shall have very little competition from Norwegian oils this season, as Germany is in the field for practically all the Norwegian products. So very little Norwegian oil will find its way across the Atlantic. Judging from recent telegraphic news the exchange of products between Norway and Germany is being renewed vigorously. The following appeared a day or two ago in the press:

London, April 10.—"The Germans have resumed trade with the west coast of Norway. . . . The first German steamer since the war began arrived at Aalesund last week, where it was loaded with fish and oil. A second German steamer entered two days later with a cargo of coal and briquettes, returning with salt, fish and oil."

Fishery Exports from January 1st, to March 31st.

Cod (qtls.):—	
To Portugal	4,966
Spain	49,842
Italy	6,293
British West Indies	15,794
Brazil	104,313
Canada	25
England	15,257
United States	4,666
Other Parts	33,064
Seal Oil (tuns)	6
Cod Oil (tuns):—	
To United Kingdom	199
Other Parts	709
Seal Skins (No.):—	
To United States	168
Herring (barrels):—	
To United States and elsewhere	20,381
Cod Liver Oil (tuns):—	
To United States and elsewhere	73
Guano (tuns)	25
Trout (barrels)	69
Lobsters (cases)	2,028

Market Report, April 1st.

Codfish, medium, merchantable, per qtl.	$7.20 to $7.50
Do., Madeira, per qtl.	$6.00 to $6.50
Do., Labrador (Soft), per qtl.	$5.00
Do., Labrador (Shore Cured), per qtl.	$6.50 to 6.70
Do., West India, per qtl.	$3.00 to $3.50
Haddock, per qtl.	$3.50
Herring, Scotch pack, per brl.	$10.00
Do., Split Ordinary, per brl.	$4.00 to 4.20
Salmon, No. 1 Large, per trc.	$16.00
Do., No. 1 Small, per trc.	$12.00
Lobsters, per case	$14.00

Latest Fishery News.

Latest report from the Western Shore says that the following schooners have fared well: "The catch of codfish from Rose Blanche to Harbor Le Cou is 6,910 quintals. A few of the smaller boats did remarkably well on the banks from 3 to 8 miles off, as there was no fish on the usual grounds. The fishermen attribute this to the schooners splitting and dumping offal all the previous week. The schooners did not return to port, as the weather was moderate, but dressed their fish, which is ruinous to local men; and unless some legislation is enacted the shore fishery will soon be a thing of the past."

The lucky ones fishing on the Western Shore are the following: Capt. John Thornhill, of Grand Bank, 1,300 quintals; Capt. Tom Hollett, Burin, 1,200; Capt. Vatcher Cluett, Belloram, 1,200; Capt. Thornhill, Grand Bank, 800; Holletts schooners, Burin, 800 and 900; Capt. Fudge, Belloram, 800; Inkpen's schooner, 900; Metamora, Capt. John Lewis, 500 quintals for a couple of week's fishing. Capt. Lewis did not leave St. Johns' till the end of February.

The following arrivals are reported at Belloram:—Winifred, 800 qtls.; Effie M. Prior, 1,250; Valoria, 600; Nahada, 500; Allan F. Rose, 500.

ST. JOHN'S, N'FLD.

(From Our Special Correspondent.)

Winter Codfishery.

This voyage is practically over for this year, and most of the Bankers have returned to home ports to get ready for Grand Bank fishing. Some have done well, but others have secured but small trips. The returns on the whole will not place the catch very much more than it was last year at this date, though several of the schooners have totalled more; many of the fleet hail from 800 to 1,200 quintals. This fleet, which numbered about eighty schooners, has been on the grounds for more than ten weeks. The only schooner to do well that started late at fishing was the Metamora, her crew trawling five hundred quintals of cod in two weeks. A few others of the bankers which sailed late also had good luck, one crew getting ninety quintals for one day's work.

Though cod does not become scarce on the Rose Blanche fishing grounds at this season, the custom is for the bigger vessels to return and get ready for the greater part of the fishing covering from the Quero to the Flemish Gap.

Norwegian Fishery.

The following figures were posted at the Board of Trade Rooms yesterday:—

Lofoden	13,800,000
All Others	26,800,000
Total	40,600,000
Last Year.	
Lofoden	15,000,000
All Others	33,600,000
Total	49,100,000

Exports of Fish for March, 1916.

From outports:—	Dried Fish.
To Europe	2,664 qtls.
To Canada	2,600 qtls.
Also	
To United States, pickled fish	2,842 qtls.
To United States, herrings	933 brls.
From St. John's:	Dried Fish.
To Brazil	23,766 1-3 qtls.
To Europe	48,237 1-2 qtls.
To Great Britain	5,503 qtls.
To West Indies	4,651 qtls.
To United States	86 1-3 qtls.
Total	83,244 1-2 qtls.

Also: 4,004 1-2 barrels of herring, 180 tierces of salmon, 130 barrels of turbot, 10 barrels of trout, 4 barrels of salmon, 327 cases of lobsters, 15 cases of dry squid, 163 3-4 tuns of cod oil, 2 1-2 tuns of seal oil, 8,359 gallons of cod liver oil, 143 gallons of cod oil pitchings.

Comparative Statement of Fish Exports for March.

Dry Fish.	
1916	88,503 1-2 qtls.
1915	20,534 qtls.
Increase	67,974 1-2 qtls.
Pickled Fish.	
1916	2,842 qtls.
1915	3,778 qtls.
Decrease	946 qtls.

Oporto Market.

The latest condition of the Oporto market received by cable on April 12th is as follows:

	Past Wk.	Prev. Wk.
Consumption	5,992	5,057
Stocks (Nfld.)	21,738	27,730

Tonnage for Newfoundland.

Our fleet of foreign going sailing ships have been greatly augmented during the past few weeks. From Gloucester, Mass., we learn of the following recent purchases for the Newfoundland trade.

The schooner Nellie Dixon, owned by Leslie M. Akers, of East Boston, has been sold to Newfoundland parties, and is now at T. Wharf fitting for the trip to her new port. The vessel was built in Boston in 1889, was 111 tons gross and 68 tons net.

The schooner Lucania, of Provincetown, formerly owned by Sylvanus Smith Co., of this city, has been sold to Newfoundland parties. She was built in this city in 1904, was 147 tons gross, and 104 tons net..

The schooner Preceptor, owned by Captain Jerome Macdonald, was sold yesterday afternon to George Buffet, of Grand Bank, Newfoundland. The new owner recently lost one of his crafts and the Preceptor will take her place. The skipper and crew are on their way here to take the craft to her new destination. The sale was consummated through the office of Percy C. Parkhurst, of this city. The craft was built at Essex, 1889. She was 126 tons gross and 89 tons net.

The schooner Independence II. has been sold to J. W. Hiscock, of Brigus, N'fld. The vessel was built in Essex, 1904, and is 145 tons gross and 109 tons net; being one of the largest vessels going from this port.

Newfoundland American Packing Co.

A fish curing plant which in the near future will be established for the Newfoundland American Packing Co., will be one of the largest concerns from the State of Massachusetts east. The work of erecting the buildings and installing the machinery will begin within a couple of weeks.

The company will erect cold storage and refrigerating packing plants for dressing cod, salmon, herring, caplin, and other fishes in various ways, in tins, glass and cardboard packages. They will also erect a smoke house where herrings, haddock, caplin, and salmon will be cured under a method that has had the highest approval of the American markets. Another feature is the building of a plant for the saving of the bye-products.

The cold storage building will be fifty-five feet by seventy-five feet, built of wood, in which will be stowed squid for bait, and cod, salmon, and herring for shipment to foreign and local markets. Machinery of the very latest type will be installed, and its working will be in charge of experts.

The packing room will be in a three story building fifty feet by one hundred feet, and will give a square foot capacity of 15,000 feet.

There will be a dryer in the building capable of handling 200 quintals of salt bulk cod every thirty-six hours. The offices of the company will be in this building, which will be heated by steam and lighted by electricity, and as well, fitted with up-to-date sanitary arrangements.

The fertilizer will be manufactured inside a building 30 feet by 70 feet, where there will be installed a large system for converting all offal into marketable goods that is the best science has devised.

The company contemplates building two piers and a breast work, which will be piled, and when finished will cover a space of 25,000 square feet.

A fresh water supply, with an estimated pressure of seventy-five pounds to the square inch, to be used as required, will be brought out from the Bay Bulls river, and it is contemplated that very early the waters of this very river will be so developed as to give sufficient power for modern lighting and heating of all the buildings, and also the whole village of Bay Bulls.

An oil refinery will likewise be erected, and the whole plant at its opening will give employment to 100 persons.

As foreshadowed in my correspondence in the April issue of the CANADIAN FISHERMAN, the sealing voyage has been an unprecedented success. I submit a detailed report of the catch of the northern fleet:

The fleet prosecuting in the Gulf has not yet returned. They did not meet the large measure of success that attended the northern ships, but they have all secured fair trips, and are still getting some seals daily, while a couple of weeks of open season still remains for them in which to augment their catches.

The reasons which have hindered the Gulf fleet from securing loads ere this are mainly the most unfavorable ice conditions which have prevailed in the Gulf during the whole season. Latest reports from the Gulf by wireless says that the fleet has gone in search of the "old ones,," and that one ship, the SS. Viking secured above two thousand very heavy seals in one day, in the vicinity of Prince Edward Island, and that all the other ships were then working in the patch. There are four steamers operating in the gulf, namely, Viking, Ranger, Diana, and Seal. To date they have reported for about 25,000 seals altogether.

The fleet which prosecuted on the front of the island was the smallest since the introduction of the industry, but at the same time it brought to port the most valuable cargoes of seals in the history of the seal fishery. A total of 222,952 or an average of 28,000 for the eight ships was landed here, with approximately $600,000, not including the value of the skins. The seal fishery for 1916 so far as the northern voyage is concerned, was an unprecedented success from every standpoint, and will be remembered as the spring of the big trips, big seals, and big prices. The price paid for young fat is $6 per hundredweight, which is phenomenally high, the average weight of all whitecoats brought in went over fifty pounds. The Sable I. was the first home on March 30th, and on the same day the Neptune and Eagle arrived after a fortnight's absence. Inside another week the remaining four ships reached port filled to the hatches. The main body of seals was found by the Eagle 75 miles N. by E. of the Funk Islands.

The Heaviest Catch of Seals on Record.

The SS. Florizel landed for her trip the unequalled catch of 46,481 seals, which, when weighed, gave 1,196 tons, 12 cwt. 3 qrs. gross, and less the tare, 1,154 tons, 13 cwt., 2 qrs., 1 lb. net. The catches in numbers was 42,359 young harps, 2,250 young hoods, 160 bedlamers, 631 old harps and 776 old hoods. The average weight of young harps was 54 3-4 pounds, and young hoods 48 pounds. The gross value of the cargo was $136,308.35, and the net value $135,848.65.

The Florizel's catch, while not the largest in number, is the heaviest in weight, and the greatest in value ever taken from the ice-floe, and will probably go down in history. Capt. Kean, however, in 1910, also in the Florizel, brought in the greatest number of seals, 49,029, which weighed out 1,048 tons, 11 cwt. and 9 lbs. gross, 1,014 tons, 19 cwt., 1 qr. and 96 lbs. nett., valued at $91,200.10. It will thus be seen Capt. Kean has established two records as to the number of seals and weight landed in two different years, and a third record that during his capacity as master he has killed more seals than any other captain who has ever prosecuted the fishery.

The Canadian ship Sable I, in charge of a Newfoundland Captain, also made the record of being the first ship to arrive from the ice fields with a bumper trip. Her first voyage in northern waters, and a most successful one, it is not unlikely, too, that the other Canadian ship, the SS. Seal, at the Gulf, will secure a good paying trip.

Returns of the Northern Seal Fishery—Eight Ships Make Record Catch in Weight and Value.

Ship. Master.	Crew.	No. Seals.	Nett Value.	Crew. Share.
Sable I.—J. Kean	182	23,816	$63,666.09	$116.60
Eagle—E. Bishop	184	33,400	73,848.95	133.78
Neptune—G. Barbour	194	34,929	78,348.91	134.27
Bloodhound—G. Whitely	176	18,593	53,941.20	102.15
Florizel—A. Kean	270	46,481	135,345.20	167.09
Terra Nova—S. R. Winsor	202	26,853	77,756.67	127.38
Erik—N. Kean	185	18,337	52,462.48	94.52
S. Blandford—W. Winsor	197	20,503	54,101.98	91.54
	1,590	222,952	$589,471.65	

Miscellaneous Items.

Last spring, owing to the scarcity of bottoms, a long and serious scarcity of salt prevailed, this year, however, it is unlikely that last year's state of affairs will be repeated, for although shipping is much scarcer now than at the corresponding period of last year, yet those engaged in supplying that commodity, principally Job Bros., have provided for any contingency, and have been able to announce to the trade that the firm have a large number of cargoes afloat, and will be prepared to supply largely to the fishermen this spring.

Herrings are now plentiful at Torbay, Portugal Cove, and nearly all the outlying fishing settlements of St. John's, and large hauls are being made daily.

The first sign of cod fish on the northern part of the coast, was secured one day this week as far north as Cat Harbor.

The Bankers Ornate, with 500 quintals; Elva Blanche, with 500 quintals; and Elsie Norman, with 400 quintals, are the latest to arrive from the Western Bank fishery.

The SS. Neptune has just sailed for New York with a load of oil from Job Bros.

Messrs. Bowring Brothers have just received a message which informs them that their vessel the Nellie Louise, has gone ashore, while leaving Barbadoes, and is expected to become a total loss.

The Nellie Louise brought a cargo of fish to Barbados about a month ago, and her loss will be felt severely by local shipping.

She was a splendid type of three-masted schooner, was built by Bowring Bros., 1910, at LaHave, N.S., by J. N. Rafuse. She was laden with molasess for St. John's when the accident occurred.

A hot debate which took place in the House of Assembly last week, which is now in session, resulted very materially to the advantage of the fishermen. The debate was on the question of cod oil, and it was claimed by one member that our fishermen last year lost to the tune of $60,000 on their oil shipments, owing to the fact that the gauging of oil does not give an exact measurement, and our fishermen, who all sell by this measurement, lose as much as from two to three gallons on a cask. This statement was put to an actual test by our Officer of Weights and Measures, and it was found that the statement was correct. The government then took up the measure, and as a result our fishermen henceforth shipping oil will get credit for about two more gallons per cask than heretofore, which will mean to them about $50,000 annually.

All the wooden sealers which heretofore never engaged at anything except the sealing industry will be employed all this summer freighting pit-props to British ports.

The schooners Mauno Loa, Viola May, Clintona, Novelty, Edith, Marguerite, Ida M. Zinck have just sailed, or are about to sail, with loads of fish for foreign markets.

YARMOUTH, N.S.

(Special Correspondence.)

There has been quite an improvement in the fisheries here during the past month. Winter left us very suddenly, about the end of March, and we have had fairly good spring weather since then. The schooners that are in commission have all landed a number of fares; some of them quite large ones. But a peculiar phase of the industry is that the vessels have to fish in comparatively strange waters. Captain Simms, of the Loran B. Snow, says that the fish have seemingly left their old haunts entirely. No fish—not even haddock—are being taken in shoal water where up to this year they have schooled in countless numbers. The schooners are all fishing on the edge of the banks in what is known as the "Gully," and are taking their catches on soft, muddy bottoms in deeper water than usually fished.

A month ago halibut reached a price ex-vessel which would have made one of our old--time fishermen gasp. One or two small fares were landed at 23 cents and 25 cents per pound; the usual price is about 7 or 8 cents. At the present time the vessels are getting 9 and 9½ cents. So lobsters were not the only sea food which was away up in price. By the way, lobsters have slumped some. At the time of my last letter they were within reach of $1.00, but a large shipment caused a dull, sickening thud when the ambitious $100 lobster dropped to $35. That was about April 1, and it has not exceeded that figure since, in fact, it is considerably under that, and there has been a lot of fluctuation, dropping as low as $20, but it has held mostly about $28, at which it is at present.

The fishermen complain that bait is scarce and high. Alewives, principally from New Brunswick, supply the most of the vessels, and the price has almost reached $3 per hundred. According to that the common alewive has ambitions to be in the halibut class, as usually the price is around $1.50.

The vessels have commenced to come out of winter quarters. The Nathalie is one of them and she is preparing for handlining and will go into commission early in May. The Eddie J., which was rebuilt during the winter, will go into commission shortly. She has been renamed the Abel A. It was at first intended to call her the Edith Cavell, but some other vessel owner was ahead of them. The Dawn is also being put in readiness. The small boat owners are backward this season. This time last year most of the boats were painted and off, but there is little doing around them this year as yet.

The Yarmouth Times (Conservative) a few issues ago had the following editorial on the Modus Vivendi, which is of particular interest owing to the fact that the principal opponents of the movement here are Conservatives:

"A movement has been started in the Maritime Provinces looking to the amending of the present Modus Vivendi, more especially with reference to that portion of it which restricts American fishing vessels propelled by gasoline motor power from obtaining a Canadian license. Largely signed petitions from all the larger cities, towns and villages adjacent to the fishing grounds have been forwarded to Ottawa and these with resolutions passed by Boards of Trade reveal the strength of the forces demanding this change. When the present Modus Vivendi became law and government licenses were issued under it, gasoline propulsion was unheard of in fishing crafts and all fishing seaports derived the financial benefit accruing from a healthy trade with United States vessels. Since that time, however, all the more worthy and larger fishing vessels belonging to the United States are fitted with motor propulsion; thus the trade once enjoyed by our towns with them has been wiped out entirely. In other words, the intention of the original Modus Vivendi has been destroyed. The time has come for a concerted effort demanding a change in this condition. The request of the petitioners is neither outrageous, unpatriotic, nor in any way detrimental to the Canadian towns and cities not directly concerned in the fisheries. The demand is simply this, that American fishing vessels (sailing) propelled by gasoline power be allowed to obtain a license so as to purchase bait and supplies and particularly to tranship fresh fish in bond from Canada to the United States. Inasmuch as the restrictions affecting American fishing vessels on the British Columbia coast have been entirely removed it seems only just that the same treatment should be meted out to those adjacent to the Atlantic fisheries. In Nova Scotia, the counties that would benefit most by the change are Digby, Yarmouth, Shelburne and Lunenburg, and it is from these counties that the most largely signed petitions have come. Some opposition has arisen to the granting of the prayer of the petitioners and it might be well to glance at their arguments. The opponents of the proposal state that it would be wrong to allow United States fishermen to operate out of our Canadian ports, for, in doing so the government would be giving them an advantage in our geographical position and proximity to the fishing grounds. Then again, no extension of priivleges to American fisherman in Canadian ports should be granted by Canada, except in exchange for corresponding privileges to Canadian fishermen in United States ports. These objections are doubtless both sincere and sound, and are worthy of serious consideration. But it seems passing strange that the men who have so largely signed the petitions already referred to are the Canadian fishermen themselves and those who oppose it are not the men who go out and get the fish but those who buy the catch and later sell to good advantage. In a matter like this, one would naturally listen to the voice of the man who goes out and braves the elements to obtain the fish. And these are the very men who want the change and have signed petitions to that effect.

"It is an old proverb that "a fair exchange is no robbery" and at first sight the demand for the removal of the restriction does seem a one-sided affair; but it is not. Think what Yarmouth, Shelburne, Lockeport, Digby and other places would gain by such an amendment. These places being situated nearer the fishing grounds than the home ports, many of the motor-driven American vessels would come in, land their catch in bond for transfer, re-fit, buy bait, provisions, salt, ice and other necessities and return to the fishing grounds, thus saving time and bringing "grist to our local mils." One can almost imagine the picture of deserted wharves buzzing with activity, and a new life taking possession of our water front. The magnificent harbor of Shelburne would no longer remain a "thing of beauty" only, but become a "public utility" in the fullest sense. Judging the measure from a purely local standpoint it would mean dollars and cents to Yarmouth, and inasmuch as the nations of Europe have learned to cast loving eyes at American dollars, why should not the Western Counties of this Province direct the flow of some of this wealth in this direction? The criticism has been advanced that it is unpatriotic and savors of local legislation. This is not true. How could the business of Montreal, Toronto and Winnipeg be affected by American ships landing fish at Yarmouth for shipment to Boston? The government might at least pass the order-in-council which would enable the proposal to undergo a trial for at least a year and should it prove derogatory to our fishing interests or in any other way seem an injustice to the toilers of the sea that it would be speedily rescinded. Let us hope that the government at Ottawa will give heed to the petitions and prove or disprove the value of the suggestion by the test of operation."

Following have been the exports for the month:

Live Lobsters, crates	4,580
Fresh Salmon, boxes	9
Fresh Halibut, cases	90
Fresh Fish, cases	119
Fresh Fish, boxes	6
Fresh Fish barrels	1
Salt Fish (Green), cases	186
Salt Fish (Green), barrels	21
Periwinkles, barrels	35
Dry Cod, drums	1,687
Dry Cod, cases	164
Dry Cod, boxes	150
Boneless Cod, boxes	3,917
Canned Lobster, cases	309
Fish Waste, barrels	77
Dry Salt Fish, cases	400
Dry Salt Fish, boxes	50
Haddock Roe, boxes	6
Salt Mackerel, barrels	1
Scallops, half barrels	46
Clams, barrels	66
Herring, barrels	59
Hake, cases	18
Fresh Cod, cases	77
Smelts, boxes	54
Fish Scraps, barrels	5
Alewives, barrels	352
Alewives, half barrels	36
Eels, barrels	5
Fish Roe, boxes	12
Fish Clippings	4
Salt Hake, boxes	7

To Cuba: 700 cases salt cod.

To Panama: 8 butts, 20 cases, salt cod; 18 half-barrels salt mackerel; 5 half-barrels salt Salmon.

To Colon: 20 butts, 20 cases salt cod; 5 half-barrels salmon; 20 bbls. herring; 2½ bbls. alewives.

To Brazil: 300 tubs, 750 drums salt cod.

To Porto Rico: 144 drums salt cod.

THE VALUE OF SCALES IN THE STUDY OF THE LIFE-HISTORY OF FISHES.

At a meeting of the British Columbia Academy of Science held on February 29, in the Physics Lecture room of the University a paper was read by Dr. C. MacLean Fraser, Curator of the Marine Biological Station at Nanaimo, on "The Value of Scales in the study of the life-history of fishes."

In introducing the subject Dr. Fraser stated that the value of the fisheries of the Province of British Columbia seldom received due consideration. During the last three years as well as in 1909 and 1905, it has been the banner fish province of the Dominion. The value of the fisheries compares favourably with that of the other industries in the province. The values for 1915 were: Fisheries, $11,515,086, Mines $30,000,000, Timber $27,000,000, Agriculture $30,000,000.

Proper conservation, he said, is necessary if the value is to be increased or even retained at its present level. Some method of conservation must be based on a knowledge of the life-history of the fish itself. Such knowledge of the Pacific species is not yet very conspicuous. Much may be learned by direct observation, but it is impossible to follow any fish throughout its life under natural conditions, knowledge of the life-history of the species, obtained in this way, must be piece-work from observation on many individuals. The method of direct observation has been supplemented of late by the study of scales and otoliths or "ear-bones." These are more suitable for study than other organs of the body since retarded growth in them may readily be distinguished from rapid growth. As the fish continues to grow as long as life lasts, the scales and otoliths do also, although the fish is of some size before the scales start to grow. In these, therefore, there is a continuous life record. The scales of each species of fish are characteristic and hence can be used for diagnosis. In the individual fish the age when caught and the amount of growth in each year may be determined from an examination of the scales.

Slides made from photo-micrographs were used to illustrate these points. The scales of the spring and cohoe salmon served to call attention to the annual growth as in these the rapid growth of the summer indicated by the wide spaces between the concentric rings is readily distinguished from the retarded growth during the winter as shown by the close proximity of the rings. This close area is sometimes called the "winter check." Although this retardation takes place most noticeably during the winter season, it is not due di-

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THE PACIFIC FISHERIES

Sea Lions of British Columbia

Shall They be Exterminated or Merely Reduced in Numbers?—Are They Seriously Threatening the Fisheries of the Pacific, or is This a Fisherman's Yarn?

By WILLIAM HAMAR GREENWOOD, B.A.

What is a sea-lion? This is a question that an easterner might pause to answer, but which a resident of British Columbia could reply to without a moment's hesitation, because the sea-lion makes his home on the rocks in the Pacific Ocean.

Why is a sea-lion? The question put in this bizarre form enables one to call the attention to the fact that the presence of sea-lions to the number of possibly 11,000 in the coast waters of British Columbia has resulted in charging them with serious depredations on the food fisheries of British Columbia.

Until the Sea-Lion Commission was appointed a year ago, under the authority of the Biological Board of Canada, to investigate the alleged depredations of sea-lions and to suggest methods of minimizing their destruction of food fishes in British Columbia, the sea-lion was merely a bold, hardy, fin-footed sea animal, worthy of a snap-shot from the curious tourist, if he was lucky enough to come within range. To-day, however, he has become a problem in conservation, which is being studied on scientific lines, to the end that, happily, he may not be exterminated, nor yet allowed to propagate his species so rapidly and in such proximity to food fisheries, as to menace them.

Special Point is Fin-Feet.

Sea-lions are found in all the oceans of the world. Incorrectly some writers class sea-lions with Ferae, because they eat flesh. It would be just as reasonable to class them with cats. Like a seal, and a walrus, a sea-lion is fin-footed, belonging to the class of Pin-ni-pe-di-a. His neck is long and supple. His front flippers are long and triangular, hairy and clawed, living paddlers. His hind flippers are webtoed. His ears are small and sharp-pointed. He carries his head high and shows a face very like a lion's face in appearance. His action in swimming and climbing rocks is swift and his disposition lively.

Two species of sea-lions are found in the Pacific from sunny Southern California to windy Western Alaska. They are the California sea-lions and the Steller sea-lions. The former is known as Zalophus Californianus; the latter, Eumetopias Stelleri. The former does not appear in British Columbia waters, is much smaller in size and presumably not so carnivorous as his brother Steller.

The latter inhabits the North Pacific from Behring Strait to California and Japan. The full grown male measures from 13 1-2 to 14 feet from the tip of the nose to the end of the outstretched hind foot, and from 7 1-2 to 9 feet in girth at the chest, and has an average weight of 1,000 pounds. Large individuals attain 1,200 to 1,300 pounds. The females measure 8 1-2 to 9 feet in length, and are more slender than the males. The sea-lion's resemblance to the lion is due not only to his leonine face, but also to the heavy folds of skin upon his shoulers and to a slightly increased length of hair. Although in his combats with his kind as brave as a lion, yet he is an arrant coward before man. A child with a pop-gun could stampede 10,000 huge bulls. His voice is either a low growl or a deep, grand roar, which harmonizes with the grandeur of the scenery around his abode.

The sea-lion was a valuable animal to the Indians who used to eat his flesh, burn his oil, make thread from his sinews, convert the lining of his throat into boots, taking the soles from his feet, while out of his stomach was made oil bottles, and out of his tanned intestines waterproof clothing. But while he was useful to aboriginal man and may yet be used to-day for many commercial purposes, yet he is also carnivorous and destructive to certain most important and valuable food fishes, and particularly to salmon, halibut, and herring. And the question thereupon arises whether he ought to be exterminated, as far as this is in the power of man, or merely regulated, by markedly and judiciously reducing his numbers, which should be easily possible, by taking advantage of his resort to rookeries in multitudinous numbers, during the breeding season, in the months of May and June.

How Problem Was Met in United States.

The questions at issue are by no means new on the Pacific Coast, as in 1898, the life-habits of the sea-lion were investigated in California, with the result that he was recommended for killing. This recommendation was founded on many facts. For many years the fishery interests had strenuously complained of the damage done by sea-lions in the bays and rivers of California. During the Fall of 1898 and the Spring of 1899 the salmon fishermen made repeated calls for relief, claiming that the sea-lions followed the salmon from the ocean for more than 100 miles inland. The managers of canneries and the buyers from San Francisco joined in the requests. The Patrol Force corroborated these statements, and alleged that the territory covered by them swarmed with these animals. The sea-lion was no longer of commercial value. Such scientists as Jordan, Gilbert and Harkness were convinced of the justice of reducing their numbers. Captain Butwell, Chief Lighthouse Keeper of Ano Neuvo Island, in the Summer of 1899, made an examination of the stomach of a large grey sea-lion, Eumetopias Stelleri, and found over 60 pounds of fish bones; and during the following summer a sea-lion with a salmon in its jaws was killed.

In 1901 another Commission, under Cloudesley Button as Chairman, reported that out of 18 stomachs of Eumetopias examined, 13 contained food. While all had eaten fish, 5 had eaten squid, but relatively, the fish was larger in amount, up to 35 pounds, while the squid was small,6 being the greatest number in any one stomach, indicating that the Eumetopias sea-lion was largely a fish consumer, whereas the California sea-lion was found to be largely a squid eater, although no doubt, either fed on what was most convenient. On the Columbia River, salmon were photographed that had been mutilated after being caught in gill nets. Fishermen stated that the sea-lions always took a bite out of the bellies of netted salmon. A company operating at Chinook, Washington, valued their loss of fish through sea-lions at $1,500, the damage to nets not being included. Sea-lions also entered the traps, and after eating their fill broke their way out. Since the Summer of 1899, owing to the killing of sea-lions along the California Coast by State patrols and the fishermen, the number of sea-lions in bays and rivers had greatly decreased, and no serious complaint had been made.

Oregon, offered a bounty of $2.50 for each sea-lion killed in its waters, or within one marine league of the shore. But in Washington, while complaints have been made, nothing definite seems to have been done.

Bounty Begun in British Columbia.

In British Columbia in 1912, owing to complaints of sea-lion depredations on the British Columbia fisheries, John P. Babcock, Assistant Commissioner of Fisheries at Victoria, appointed Dr. Newcombe, the well-known naturalist of Victoria, a Commissioner to investigate. Dr. Newcombe's findings were embodied in the Provincial Fisheries report for that year, and comprise fifteen or more printed pages of excellent first hand information. As to the damage found done, Dr. Newcombe says "Practically the only tangible complaints of great damage were heard of at outer Rivers Inlet canneries and at Ucluelet, at the mouth of Barkley Sound," on the west coast of Vancouver Island.

Following the publication of the results of Dr. Newcombe's investigation a bounty was offered by the canners of Rivers Inlet of $2.00 a tail on all sea-lions killed in adjacent waters of British Columbia for the year 1914, and a similar bounty was offered by the Federal Government in 1915 on presentation of the muzzle. The change from tail to muzzle was made because it was discovered that some aboriginies had been salting down tails in 1914 in order to collect them in 1915. It appears as if the bounty system induces even the children of Nature to practise to deceive. Hence the tangled web had to be straightened out.

Difficult to Retrieve Carcasses.

In a review of the sea-lion hunting operations of 1915, it is evident that the waste of carcasses was large and serious, one fishery overseer stating that perhaps only one carcass out of every ten animals destroyed was saved and another placing this proportion at one out of six, and three out of every four of the calves that were killed. Indeed, at most, it appears that only about 50 per cent of all sea-lions which are killed, adults and pups are saved; and were it not for the fact that hunters confine their attention almost exclusively to the young animals, very few would be saved, as the adults, except during breeding season, always take to the water as soon as the boats get within gun-shot; and a sea-lion sinks as soon as it is killed, and if those that are fatally wounded manage to roll into the water, they usually sink immediately.

Out of 1,623 sea-lions or muzzles taken in 1915 in the Bella Bella District, 75 per cent came from pups which were clubbed when they were a few days old. Out of 1,173 sea-lions killed at the East Haycocks rookery, near the northern end of Vancouver Island, 800 were pups. In this case 120 shots were fired before a footing could be gained on the rookery, and as most of the wounded sea-lions rolled into the water their carcasses sank and were lost. In another instance early in June, before the calving season, a Wadham's Cannery crew secured only four muzzles for 1,000 shots, showing how difficult it is to save sea-lions that are killed in the water, although it is admitted that this is an exceptional case.

Sea-Lion Commission Takes a Hand.

In regard to the Federal bounty it may be explained that prior to the year 1915 it was limited to hair seals, but at the opening of the 1915 season it was extended to sea-lions, and $5,759 was paid directly from the Dominion Fisheries office, New Westminster, on 2,875 muzzles. Most of these animals were destroyed at the following rookeries: Virgin Rocks, East Haycocks, Queen Charlotte Sound, and the Sea-Otter group.

This bounty fund was exhausted early in 1915, and the whole problem of the sea-lion was turned over to the Biological Board of Canada as a proper subject for scientific investigation and economic recommendation. Hence arose the Sea-Lion Commission which has been at work since May, 1915, and is still at it.

On August 30th, with two Commissioners, Drs. Newcombe and Fraser, on board, the Malaspina, of the Naval Service, went north on a trip of sea-lion inspection and investigation, but through lack of time, the attempt to visit all the coast rookeries was abandoned. On the Solander Island rookery alone, it was estimated that at least 1,000 sea-lions were seen.

However, evidence was taken of witnesses, including Indians, P. Enrig, manager of the B. C. Packers' Cannery at Rivers Inlet, and J. Boyd, fishery overseer at Bella Bella Cannery, and cold storagemen and fishermen, sea captains and fishing officers, et al., representing localities from Alert Bay to Hecate Strait, 26 in number, all agreed that sea-lions eat food fishes, salmon and halibut being most frequently mentioned, and of the salmon, the Spring, the Sockeye, the Cohoe, while Humpback and the Dog Salmon were not mentioned. The food fishes instanced were: Herring, Oolachan, Red-ling and Rock Cod and Devil Fish, and in a single instance dog fish and even birds.

Evidence of Injury Done.

With regard to the injury done, the salmon, halibut and herring fisheries were alone considered, while complaints were almost wholly confined to the Rivers Inlet region, where the Sockeye season is at its height just after the pupping season, when, owing to long fasting the sea-lions are ravenous, as during the pupping season, it is said that no food is taken by the adults.

Mr. Enrig reported having seen 36 Sockeye salmon, either whole or in portions, in a single sea-lion stomach, although this cannot be taken as typical for the whole year. The sea-lion being a swift swimmer, readily overtakes the salmon, and if the fish are plentiful the belly-bitten fish is not again touched. Then many salmon are seized in the gill nets, especially when these are being handled. And in one case the same sea-lion took 16 salmon as fast as the net reached the surface of the water. On such occasions much harm is done to the gear. Previous to 1911 the sea-lions were apparently not so numerous, but in 1911 they became especially troublesome, while in 1912 and 1913 so many fish were taken from the nets set in Rivers Inlet that the fishing in this locality was discontinued.

The injury done the halibut fisheries has been less serious, partly due to the different methods of fishing. The attack on the halibut can be observed only when being taken from the hook. Damage was reported from Hecate Strait and from the area north and northwest of Vancouver Island, but in this relation little damage to gear need be apprehended.

Herring Schools Scattered.

Damage to the herring industry was reported from only a single locality, Barkley Sound, and the complaint was not so much that the schools of herring were being depleted as that these were broken up and scattered and driven seawards. As many as 300 sea-lions were reported from this Sound, where they haul out on the Bird Rocks. In other localities, and notably Clayuquot, Quatsino Sound and in the Naas River, while the herring runs are followed by sea-lions, yet not enough fishing has been done to justify any special observations.

The Malaspina trip not only concerned the fields of operations and depredations of all the provincial rookeries, but it led to an investigation of the Cape Flattery rookery, which is located on the Jagged Inlets. about 9 miles south of Umatilla Reef, or 29 miles south of Cape Flattery, and it is extensive. From this rookery the sea-lions come into the Strait of Fuca, haul out on the rocks not far from Neah Bay, and even come into the Bay after fish.

The Indians of this locality fully confirm the charge that sea-lions eat and destroy salmon, halibut, herring, while letters from cannery managers throughout British Columbia more than corroborated this testimony. Few of the latter gave estimates of gear damaged, but the estimates under this head for 1915 exceeded $1,600, while it was stated that the loss in salmon through mutilation and in herring through diversion of runs, would be very considerable.

At Rivers Inlet a definite increase in the number of sea-lions was noted during 1911-12-13, and a noticeable decrease since 1913. These correspondents almost unanimously favored complete and rapid extermination, aided by a government bounty, to be accomplished by shooting the adults and clubbing the pups in June, soon after they are born, although poisoning and other methods were suggested. These methods, however, would not answer well in the case of Barkley Sound, to which these animals only resort late in the Fall. The majority of cannery correspondents favored the muzzles as a bounty mark, while it was further suggested that this mark be changed yearly. In Barkley Sound sea-lions have been destroyed for several years, but it was not until 1914 that their destruction was undertaken elsewhere.

Loss of Cannery Gear is Great.

The loss of gear at Wadham's Cannery, Rivers Inlet, during 1913, was valued at $3.021 and so much damage was done elsewhere that concerted action among the canners was taken and a bounty fund of $1,050 raised. In 36 hours enough tails, 525, were secured to exhaust this amount, $2 a tail being paid. During that year many sea-lions were killed on Barkley Sound and, as they can be chased like a herd of cattle, they were driven away from the schools of herring.

A great many were destroyed at Rivers Inlet in 1915 and the sum of $5,750 set aside as a bounty by the Fisheries Department was soon absorbed at the rate of $2 a muzzle. Of these 2,875, 1,616 were killed at the Sea Otter group of islands at the mouth of Rivers Inlet, 1,616 i nthe East Haycocks Islands, in the Cape Scott group. In addition 674 were presented too late for bounty purposes. During these two years, 1914-1915, it is known that 4,074 were killed, 3.549 in 1915, and 525 in 1914, while it is estimated that in all 8,000, some 6.000 being pups, were destroyed. In 1915 the sea-lions made their first appearance for the season on Barkley Sound on November 1st and when ever they were seen, schools of herring were also visible.

Some Suggestions Suggested.

As the damage done by sea-lions in California waters was materially lessened within two or three years after their killing began, the disappearance of the California species at this date appears to be possible, and it may be suggested that the sea-lion problem may be similarly settled in British Columbia and especially so, in view of the great destruction of pups which has occured during the past two years.

As regards the destruction of sea-lions, great caution may be well advised lest irreparable mischief be done, while whatever happens, no species of wild animals should be exterminated. In the next place, it is urged by some authorities that all the killing operations which may be authorized should be conducted not by the fish companies but under the direction of the government officials, although the fish companies might co-operate in certain particulars.

To the layman the destruction of wild life through bounties may appear right in principle and feasible in practice but the scientist knows it has hitherto been injurious. The bounty on hawks and owls paid at one time by the State of Pennsylvania was disastrous, for not only were useful birds destroyed in large numbers but much money was wasted. The bounty paid by Western States on coyotes not only proved to be expensive and led to fraud, but also resulted in the creation of plagues of jack rabbits which could only be kept down by expensive wholesale drives. The harbour seal, although it is not especially harmful, was largely destroyed through State bounties.

Inasmuch as both sea-lions and salmon were marvellously abundant before commercial fishing, the inference is suggested that the salmon supply has really become reduced owing to most exhaustive and reckless kinds of fishing. And this has been so clearly the case, that restrictive methods of fishing will still be necessary even though it could be satisfactorily shown that sea-lions take a very considerable toll from salmon runs.

Testimony of Fishermen not Reliable.

With a desire to be fair and at the same time candid, it cannot be denied that the testimony of fishermen touching the damage done to the food fishing industry of British Columbia by sea-lions may be largely and seriously discredited. It is hence incumbent on the Sea-lion Commissioners to examine the contents of the stomachs of many sea-lions of both sexes and of all ages and during all seasons of the year, and taken at different points along the British Columbia coast, in order that the conclusions drawn from this array of evidence might be final and even prevail against any political influence which any interested persons might be able to exercise, as nothing short of the most conclusive evidence to the effect that sea lions actually destroy substantial quantities of commercial fishes would justify the destruction of the splendid Steller Sea-lion.

The Sea-lion Commision has made a preliminary report to the Biological Board but the Commissioners have been asked to continue their investigations throughout 1916. Besides the considerations noted, the Commisioners must determine in their own minds whether the expenditure of the bounty in 1915 had an appreciable and beneficial effect on the fisheries at Rivers Inlet. Most of the sea-lions killed in the neighborhood of the Sea Otter group, the only rookery that affects the fishing at Rivers Inlet, were killed by cannery employees. Only 40 per cent of the bounty expended was paid for sea-lions that could have affected Rivers Inlet. The remaining 60 per cent went for sea-lions from the East and West Haycocks Islands, too far away from Rivers Inlet to cause fishing depredations there. Possibly some other fishing grounds were benefitted. In the meantime no further bounty is being offered.

With the enormous consumption of leather, due to the war, and the growing scarcity of cattle, perhaps the time has come when the hides of sea-lions might be turned to commercial uses. Sea-lion carcasses produce oil and guano, for which there is a ready market. If they are to be killed might their hides and carcasses not be productive of value? It is too much to say that the sea-lion is wholly worthless because he interferes with canning operations. It may be wise to clear him out of certain localities, but surely that does not mean that he should be exterminated. Perhaps he does some good in the sea. He may be an enemy of an enemy of the salmon. How gladly would the canners welcome him if he could be taught to eat the dog fish! It is a remarkable fact that in Barkley Sound herring fishing is a failure before the sea-lion season, because of the dog fish pest, but the malignant dog fish vanishes when the sea-lion comes on the scene.

Altogether there are many phases of the sea-lion problem that have yet to be investigated before he is utterly condemned. At present he is on trial, and has been given a bad name.

CANADIAN FISHING COY'S NEW HALIBUTER "KINGSWAY."

Preserving Fish in Snow

By COLIN McKAY.

In France, as in England, the war has compelled interest in the question of the cold storage of fish, and as France was a pioneer in modern refrigeration, it may be worth while to give some account of what the French fishermen are doing.

French shipowners were the first to equip steamers with refrigerating chambers to carry meat from Argentina, but subsequently the government imposed restrictions that discouraged this enterprise, and the French soon fell far behind the British in the matter of refrigerating facilities for the transport of beef. But as regards provision for the refrigeration of fish, the French have in some ways made more progress than the English. One of their developments in this direction has been the equipment of steamers with refrigerating chambers, which follow the regular fishing vessels, and pick up their catches. It is interesting to note that the first vessel of this description was named the Canada. She was owned by Joseph Huret, of Boulogne.

A good many French fishermen still pack their catches in chopped ice. But this method of preservation is not considered up-to-date, especially for the better varieties of fish. When several layers of fish are piled up, the compression bruises the flesh, besides squeezing out juices, which soon give off a bad odor. A much more satisfactory method is to stow the fish in artificial snow, and quite a number of French vessels of more recent construction are equipped with machines for producing "neige artificielle." These machines are neither elaborate nor expensive, and can be operated by hand; they resemble a hay-cutter, or rather a huge coffee grinder. Into a hopper you put lumps of ice, and the machine cuts it into a powder as fine as snow. Several advantages are claimed for the practice of packing fish in artificial snow, as compared with the older method of using chopped ice. For one thing it is cheaper; in the artificial snow obtained from a given quantity of ice a larger quantity of fish can be stowed than in the ice itself. Then the fish are not bruised. Again, the fish can be completely covered, and are not affected by air currents, as it is if packed in chopped ice. Some French fishermen enclose the finer varieties of fish in parafine paper before covering them with artificial snow.

An increasing number of French fishing craft, making comparatively short trips, are adopting the artificial snow method of preservation, with gratifying results. France is also increasing its fleet of fishing vessels, equipped with mechanical refrigerating systems. But even in these vessels more and more use is being made of artificial snow. At first sight it might seem that all that was necessary was to place fish in the refrigerating chambers, the atmosphere of which can be maintained at almost any desired temperature; and by the way, it may be said that French experience has shown that different varieties of fish require different temperatures. But the fact appears to be that frozen fish do not conserve the appearance which makes them easily marketable unless surrounded by a certain humidity, which prevents the dessication of their tissues. Even when fish have been frozen in a temperature of —8 deg. Centigrade, or —18 deg. Fahrenheit, the opening of the doors of the refrigerating chambers sets up air currents which cause an evaporation prejudicial to their preservation. The French have learned that it is advisable to cover fish with artificial snow, even in the refrigerating chambers. It is claimed that fish completely covered with artificial snow, and kept in a chamber where the temperature is maintained at —1 deg. Centigrade, preserves absolutely the appearance and flavor of fish fresh from the sea.

One thing the French attach great importance to, and that is the condition of the fish destined for cold storage treatment. A fish in any way bruised, contused or crushed, is not considered a fit subject for such treatment. On the beam or otter trawlers, when the trawl is hauled, only the top layers of fish are sorted out for cold storage treatment by the conscientious fishermen, who cater to the best markets, as it is recognized that the lower layers usually bruised by compression, are likely to go bad in a short time and corrupt all the others in the cold chamber. Then cleanliness is a great point. Every fish should be carefully washed in clear water, and freed from any taint of blood before being covered with artificial snow or placed in the refrigerating chamber. These precautions have become a habit with many fishermen, experience having shown that their trouble is more than repaid by the prices they receive for properly treated fish.

It may be said here that French fishermen's opinion inclines to the view that cod, sardines, herring and mackerel, treated with salt, are preferable to the same fish conserved by cold storage, a view perhaps more or less influenced by the undoubted prejudice against frozen fish, which has existed among the French consumers. Nevertheless the conservation of fish by cold, with its promise of assuring a regular supply, is becoming in France, as elsewhere, a matter of growing importance.

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A Biological Station for Prince Rupert

Prince Rupert, rapidly becoming the fishing centre of British Columbia, should have a biological station equipped for research work, with an aquarium attached and a small permanent scientific staff in charge. Representations to the federal government should be made at once by the Board of Trade and kindred bodies of influential public opinion. An initial expenditure of $25,000 would be justified in the light of what Prince Rupert is now and will be as a fishing port.

Research, getting the facts of life habits of fish, and instruction, by reports, lectures and an information bureau are the two principle functions of a biological station. Research work, on its economic and scientific side, is the main objective but with it should go popular instruction and stimulation of interest in biology, which can be afforded only by a well-equipped and scientifically maintained aquarium. The aquarium in Battery Park is one of the sights of New York and has awakened interest in fish life and fish food throughout the United States. An aquarium at Prince Rupert would bring tourists from the ends of the earth.

Catching deep-sea fish by machinery, the development of rapid transportation and the increasing demand for fish make it imperative that there should be established a scientific basis for the conduct of British Columbia fisheries and fish culture. Only in this way can the supply of fish products be fully obtained and fish resources revealed and conserved for posterity. Modern biological stations, such as the one at Nanaimo, equipped to solve biological problems with the aid of all pertinent sciences. Chemistry, anatomy, hydrography and meteorology, all aid biology in its tasks arising out of the living organisms found in the sea. This, a biological station gathers the essential facts on which to base wise legislation; without these facts fisheries legislation is "going it blind."

A comparison may be made with experimental farms whose utility is admitted. Newer biological stations in Europe are devoted to the analysis and solution of practical problems of aquiculture and pisciculture, gathering facts and giving advice. Fisheries interests and research stations work together, the one helping the other. This is also true at Nanaimo, and would be particularly true at Prince Rupert, for the biological station, whose aim is economic, obviously is best located at or near a great fishing centre where contact with fisheries problems would be most intimate.

Prince Rupert is ideally located for a great national biological station. It is on the main lines of travel by rail and water across the continent, and also across the world. The varied richness of Pacific Ocean fauna and flora are unequalled in British. The different types of fish and marine plants are easily accessible, the purity and salinity of the water are recognized, the tides show amplitude and climatic conditions are right. With such unique advantages, a biological station could be established at Prince Rupert that would be to the Western Hemisphere what that station at Naples, Italy, is for Europe, the gathering place for biologists of all nations.

THINGS A FISHERMAN MIGHT LIKE TO KNOW.

(Concluded from Page 175.)

of ocean from which the fishermen may take them in season and conscientiously.

Statistics have been prepared by experts and for the enlightenment of the fishermen pamphlets ought to be circulated, through all fishing localities. These should be circulated by the government in explanation of such matters.

Another thing which ought to be handled is the waste in the fisheries of Canada.

Go to any place, mostly in Nova Scotia (for example) and see the fishermen taking care of the "catch." The heads of the fish, tongues, sounds, etc., are all thrown back into the sea, only the body of the fish being used. Is not this a waste? Could not somehting be done to help the fisherman who thus throws back into the water his legitimate profits?

Glue factories could take care of a lot of this waste, and if the fishermen had a way of turning into cash what is now thrown away; the laws as to "closed season" would be more strictly observed, and the lobsters which should be "awaiting the trap" would be those to be taken in "open season."

Scientists claim fish increase to be as follows:

	Eggs or spawn.
A Flounder of two ounces contains	133,407
A Herring of six ounces	36,960
Lobsters of fourteen ounces	21,699
Smelts from	14,411 to 38,278
Cod produces	3,686,700

When the fisheries will be considered as one of the most valuable assets, and steps taken to educate the fisherman in his chosen calling Canada will have accomplished something worth doing. It is time that the fisherman ceased to be considered as a creature half the time in a state of poverty (and that because of the waste of good material), and to put his calling where it belongs, at the head of the business enterprises of his country.

THE VALUE OF SCALES IN THE STUDY OF THE LIFE-HISTORY OF FISHES.

(Concluded from Page 184.)

rectly to the fall in temperature, but in all probability is due to the lack of food material in the sea at that time of the year. The area of rapid growth, together with the area of retarded growth covers a year of the fish's life and hence as there will be one of these cycles corresponds to the relative growth of the fish during the same period, hence the growth for each year may be determined. Regenerated scales show exactly when the accident or injury that made regeneration necessary took place. In these scales the difference between the slow growth in fresh water and the rapid growth in the sea is marked. The scales of the steelhead and the Atlantic salmon that stay longer in fresh water that the spring and cohoe brought out this difference in a more marked degree.

To indicate the way in which scales might be used for diagnosis, slides showing the nature of them in several of the common Pacific species were shown. These include the caplin, herring, pilched, white perch, blue perch, shiner, flounder, halibut, ling cod, Alaskan cod, hake, tomcod, and rock cod. These brought out the marked similarity in structure in scales of nearly related species and the wide divergence in type where the species had no close relationship.

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Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, JUNE, 1916 No. 6

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Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted —October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries

Of the Province of Quebec

Department of The Naval Service

FISHERIES:

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $34,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on May 1st, 1915

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)				1 April to 15 June.
Maskinonge				15 April to 15 June.
Ounaniche				1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	
Pickerel				April 15 to May 15.
Salmon (netting)	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb 28	Aug. 1 to April 30.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Sept. 16 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	April 1 to June 30
Sturgeon		June 1 to July 1.		June 1 to June 30.
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to April 30
Salmon Trout				Oct. 15 to Dec 1.
Whitefish				

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)	a15 April to 15 June.			
Maskinonge	15 April to 15 June.			
Ounaniche				
Oysters				May 1 to Aug. 31
Quahaugs				
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	
Salmon (netting)				
Salmon (angling)				
Smelts				See regulations.
Sturgeon		gMay 15 to June 15.	gMay 15 to June 15.	
Speckled Trout	Sept. 15 to April 30.			
Salmon Trout	hNov. 1 to Nov. 30.			
Whitefish	hNov. 1 to Nov. 30.	Sept. 15 to Nov. 19.	iSept. 15 to Dec. 15.	

a—Except in Lake Erie west of Pt. Pelee and around Pelee Island, where close season is May 25 to July 15.

b—Except on leased areas, where close season is from 1 July to 31 Aug.

c—No close season in St. Clair River and off Lambton County.

d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.

e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.

f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.

g—Sturgeon fishing prohibited until Jan. 1, 1916.

h—No close season in Lake Erie.

i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.

For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED
TO THE COMMERCIAL FISHERIES
OF CANADA AND NEWFOUNDLAND
THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE
- OF FISH PRODUCTS - -

F. WILLIAM WALLACE
EDITOR

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Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, JUNE, 1916 No. 6

June Fish Day Calendar

1916			JUNE			1916
Sun.	Mon.	Tues.	W ed.	Thurs	Fri.	Sat.
				1	$\boxed{2}$	3
4	5	6	7	8	$\boxed{9}$	$\boxed{10}$
11	12	13	$\boxed{14}$	15	$\boxed{16}$	$\boxed{17}$
18	19	20	21	22	$\boxed{23}$	24
25	26	27	28	29	$\boxed{30}$	

GENERAL SIR SAM HUGHES AND THE FISH BUSINESS.

Our versatile and energetic Minister of Militia has many notable achievements to his credit. Out of a few militia regiments he created a great Canadian Army: trained them in camps planned under his supervision, equipped them, and sent them overseas to fight the Empire's battle without the loss of a man in transport. Up to date, over three hundred thousand men have been enlisted in Canada for overseas service and much of the credit for the work of recruiting and taking care of this great body of soldiers must be given to Sir Sam Hughes.

The General's interest in "his boys" does not end when they leave Canada's shores. Were he so disposed, he could very easily wash his hands of them then, and leave the Canadian soldiers to the care of the British authorities in Great Britain and France. But that is not Sir Sam's way. In the training camps in Canada and Great Britain and on the firing line in Flanders, the General exercises a paternal supervision over the men he sent forth to fight and he is forever planning schemes for the comfort and care of the Canadians.

When the fishing industry of Canada, through the Canadian Fisheries Association and individuals, approached the Militia Department and urged them to supply fish rations to the soldiers in Canadian camps, Sir Sam received the proposition with appreciation of its merits, and an order was passed whereby fish could form part of the soldier's menu. Fish is now being supplied to the men in large quantities at all the camps and barracks throughout Canada.

Then, came an aggressive Scotsman from Saskatoon —a fish man — with a proposition to supply Canadian fish to the Canadian soldiers in Great Britain and France. The Western Scot had a hard time at Ottawa navigating through a maze of prejudice and red tape, but cutting adrift from routine, he interviewed Sir Sam and outlined his idea. The General was busy enough at the time and could very easily have dismissed him, but the idea appealed. He readily recognised the value of a fish diet as a change to the "bully beef and stew": also the advertising value of the scheme to the Canadian fishing industry, and the sentimental aspect of sending Canadian fish overseas to the troops was decidedly attractive.

Without any loss of time, the General appointed the man from Saskatoon to the position of Director of Fish Supplies, Canadian Army Service Corps, with the rank of Major and office with the Headquarters Staff in England. Other officials were appointed to purchase the fish here, inspect it, ship it in refrigeration to England, and Major Hugh Green — the man from Saskatoon — was to superintend the distribution in Great Britain.

It was a perilous proposition at first and Sir Sam fully realized it. As a public man, he knew how his enemies and political opponents would seize on the matter to discredit him if it turned out a failure. But it didn't turn out a failure. It was a great success. Regular supplies of fresh frozen and smoked fish are now going across weekly and the Canadian soldier is getting his fish ration both in England and in France.

In conversation with Sir Sam in Ottawa recently, he informed us that the advertising value of supplying Canadian fish to the boys in France and England was not to be under-rated. The fish was arriving in good shape and the French and British military authorities were very much interested in the scheme. When the General left England, they were making enquiries with the idea of supplying fish rations to their own soldiers and there was every likelihood of Canadian producers geting orders for the fish. The soldiers appreciated the change in diet, and Sir Sam paid a tribute to the work of Major Green. "It was his proposition", said he, "and I gave him charge and a chance to make good. I'm glad to say, he has made good and the fish men of Canada owe a debt of gratitude to Green, as he tackled a big proposition and had to buck against a lot of prejudice and red tape."

We agree with Sir Sam, and while owning our indebtedness to Major Green for the work he has undertaken, yet we must not forget the man who made the scheme possible. The fishing interests of Canada owe a great deal to the Minister of Militia and we have no hesitation in saying that his action has been the best means of advertising the value of Canadian fish and bringing prominence to the industry than ever before attempted.

RUNNING FISH FROM CANADA TO ENGLAND.

The New York Shipping Illustrated quotes from Lloyd's List (London) that construction has commenced on a new 160 foot fishing craft which is intended to carry fish in boxes from Canada to England. The vessel is to be equipped with two 350 h.p. Diesel oil engines and is to have a relatively high speed in order to get the fish across in the shortest possible time. If this vessel is successful, it is intended to construct others of a similar type but with higher power and giving a speed of 15 knots.

Lloyd's List is an exceedingly reliable marine journal and when they make a statement there is generally good foundation for it. There is no reason why such an experiment should not be successful, and as "fish in boxes" are mentioned, it is inferred that fresh fish will be carried in crushed ice. Fish for this purpose would have to be Atlantic caught and either boat or trawler fish. Fish caught by the market bankers would be too old to stand another ten or twelve days transportation across the Atlantic.

With the meagre information we have, we can only surmise what may be the intentions of those responsible for the fish-carrying scheme. If the fish, to be transported in this manner, are caught by our Canadian fishermen and purchased from them, we heartily welcome the scheme as opening larger markets for our shore fishermen. But if it is a plan for operating British steam trawlers out of Canadian ports and transhipping their catches, we do not favour the idea at all as it will not benefit Canada in one iota, nor the fishing industry of this country.

True, the ship chandlers and coal suppliers of a few Canadian ports would reap a certain amount of business, but our fishermen would not. Comment, however, must be withheld until the idea matures.

EXTENDING LOBSTER FISHING SEASONS.

Owing to the boisterous weather which reigned on the Atlantic coast during March, the Department of Marine & Fisheries have been petitioned by lobster fishermen to extend the lobster fishing season. This they have refused to do.

We hold no brief for the Department, yet we must admit that they are justified in their action. Laws are not made to break, nor are they made on a sliding scale. The lobster regulations were made to protect the lobster so that there would be a supply of them for the fishermen of the future and the markets of the future as well. The laws were framed very carefully and after lengthy investigations. To grant extensions means establishing a very bad precedent and were one allowed in the case of the lobstermen, every fisherman in the Dominion would be petitioning for extension for a dozen different fisheries.

The lobster fisherman, who lost gear and business during the bad weather, will think he is being harshly treated. But he should remember that fishing of any kind is a chancy business and everybody engaged in it must run risks. The Department of Fisheries are anxious to develop the fisheries of Canada and to see the fishermen get all they can out of them, but they are not going to develop at the expense of the fish.

Lobster fishery statistics show no falling off. Taking Shelburne County, which was ravaged by March storms and which is a great lobster ground, the statisties for the season up to the end of March show that 12,519 cwts were landed. During the same period in 1914-5, the catch of lobsters was 12,467 cwts. These figures show that 52 cwts were taken in excess of last season in spite of the falling-off in March 1916, and the catch during that month, though small, brought exceedingly high prices — as much as $80 per crate being paid in the States.

Advices on the April and May catch in Southwestern Nova Scotia report a good season and one which justifies the Department's action. We sympathise with those fishermen who suffered through bad weather and wish them better luck next season.

WHAT'S THE MATTER WITH FISH ?

We have before us a tender form for provisions for the railway and harbour construction gangs working on the Hudson Bay Railway at Port Nelson, Man. This tender is issued by the Department of Railways and Canals of which the Hon. Frank Cochrane is the Minister.

The tender calls for a very large quantity of food stuffs — running to some 84 items — yet in all the list we find but one little item calling for 100 dozen of Sardine ¼'s. That is the only fish the Department of Railways and Canals think should be supplied.

Meat tenders call for 185 barrels of beef: 220 barrels of pork, and 1,000 pounds of Ox Tongue in tins. Ye Gods! Ox Tongue these days! The wholesale price of this article is $5.50 per dozen 1 lb. tins. High living, truly!

What we would like to know is why fish has been so neglected? In Canada, our producers pack all kinds of fish. There is canned salmon, canned herrings, canned finnan haddie, canned codfish. We also produce shredded codfish, dried cod, salt herrings, bloaters, smoked and pickled fish of all kinds and varieties that will keep for a long time.

The fisheries are a national industry of this country, It is one of our great resources. Yet every Government Department in calling for edible supplies seems to forget that fish ever existed. The Militia Department, under Sir Sam Hughe's direction, is the only one which is giving our fisheries a look in on supplies. The others seem to labour under the impression that our fisheries exist but for the sportsman and the angler.

We have a Fisheries Department at Ottawa — the officials of which do a lot of good work along the lines of conserving the fisheries, but they could do more good work in developing the sale of our fish by seeing that every Government railway dining car and cafe, prison, penitentiary, asylum, agricultural college, construction camp, etc., gave fish a prominent share in the provision tenders which they call for periodically. What is the use of the Fisheries Department preaching "Eat fish!" when other Departments neglect fish entirely. A good campaign could be started right in the Government offices in Ottawa.

SPEED UP BIOLOGICAL REPORTS

In our May issue we printed an interesting and informative narrative of the work being done by the sea lion commissioners appointed by the Biological Board of Canada. Of course none of the findings of the commission was disclosed but it afforded an indication of the scope of the inquiry and the difficulties that beset the path of the investigators. Incidentally it emphasized the fact that the work of the Biological Board of Canada on its economic side as well as on its scientific side is deserving of popular favor.

If we were to offer any criticism of the Biological Board of Canada we would say that too often its valuable researches do not see the light of day until their need has slipped by. For instance, the report of Professor Willey in the Pacific Halibut fisheries made in 1914 has only now been made public, although a summary of it was happily published in Vancouver by the merest chance about a year ago. Professor Willey declares that there is no immediate call to limit the halibut fisheries but rather that the demand is for means to expand them. His opinion will go a long way to bring to a close any negotiations looking toward an international agreement for a closed season in halibut.

We are not without hope that interim and popular reports of workers and commissioners under the Biological Board will become the rule rather than the exception, for while it is true that the Biological Board is an ordinary Board of the Minister of Marine and Fisheries, yet at the same time it has to do with a national resource in which many men and much money are vitally interested. We presume to say there is a public interest in the work of the Biological Board that should not wait on the vagaries of the Printer's desire.

A full report of the Investigation into Fish Prices held in Ottawa recently and the finding of the Inquiry, can be had upon application to Mr. Thos. Howe, Secretary, House of Commons, Ottawa. The conclusion and recommendations are published in this issue.

Two important markets for Canadian and Newfoundland fish have passed laws which will hit the business hard. France has declared a prohibition of lobsters, while Portugal has promulgated a decree regulating the prices to be paid for all fish imports. The former kills the French market for Canadian canned lobster, and the latter makes the Oporto and other Portuguese markets so uncertain that shippers will be loath to send cargoes there.

An Executive Committee meeting of the Canadian Fisheries Association is to be held in Montreal on Monday, May 29th. Several important matters will be discussed and same will be duly reported in the official organ—the CANADIAN FISHERMAN.

EXECUTIVE MEETING OF CANADIAN FISHERIES ASSOCIATION

Many important matters planned for future.

The Executive Committee of the Canadian Fisheries Association met in Montreal on May 29th and several important matters were discussed. President Byrne was in the chair and in the first topic taken up by the Committee was the formulating of plans for increasing the membership of the Association. The present membership roll of the C.F.A. was satisfactory in so far as all the influential members of the firms engaged in the fishing industry of Canada were enrolled, but for educational and other purposes, members were required. The subscription fees are very low and to acquire the necessary funds for campaign work a large membership is essential. To attain this object, all the present members of the Association are constituted a "Recruiting Committee" and it is hoped that each and every member will induce two or more men interested in Canada's fisheries to become members of the Association. A special letter will be mailed to each member by the Secretary.

Tuesday Fish Day.

The idea of having Tuesday of each week a fish day as well as Friday was fully discussed and enthusiastically endorsed. With the retailers making a special display of fish on Tuesdays, the selling of fish would be spread out over the week and the business would, in time, grow into a permanent daily feature. This idea is of the greatest importance to the Industry and should be heartily backed up by every producer throughout the Dominion. Mr. Paulhus, Chairman of the Publicity Committee, suggested that the next National Fish Day be held sometime during September—definite date to be arranged later — and the campaign for a Tuesday fish day be inaugurated then. The idea was heartily endorsed and the details were left to the Publicity Committee to work out. It is hoped that every member of the Association will give this scheme his support.

Propagation of Haddock and Plaice in Pacific Waters.

Western members of the Association have asked the Committee to petition the Government to make an attempt to propagate haddock and plaice in the Pacific. The meeting signified their intention of doing so and the Secretary was instructed to act accordingly.

Uniform Size of Fish Boxes.

A communication was read from the Express Traffic Association urging that a uniform size of package for transporting fish be adopted by shippers. After considerable discussion the matter was referred to the Transportation Committee with the request that the Chairman (Mr. A. H. Brittain) communicate with the officers of the Express Traffic Association and convey the views of our members "that while dealers in the fish trade would be glad to do everything possible and work in harmony with the Express Companies, it is the opinion of the Association that uniformity in style and size of our fish packages is a physical impossibility from the very nature of the fish they contain."

Wagon Service on Shipments of Pacific Fish at Destination.

The Chairman of the Transportation Committee (Mr. A. H. Brittain) was congratulated by the meeting for the work he had done in having the amended tariff of the allied Express Companies on the above matter suspended. If the consignees of the Pacific coast fish had to bear the cartage charges of same at destination, it would have been a great hardship and hindrance to the business. Mr. Brittain, President Byrne, Mr. Paulhus, Mr. James and others attended the hearing of the Railway Commission on the matter and were ably assisted by Mr. J. E. Walsh, Traffic Expert of the Canadian Manufacturers Association who presented the case of The Canadian Fisheries Association. The tariff was to have taken effect in January 1916 but through the action of the Association it has been suspended—thus saving many of our members a considerable amount of cartage charges and inconvenience, not to mention the bad effects to the business.

National Fish Day, Feb. 29th.

A vote of thanks was passed to Mr. Paulhus and the Publicity Committee for their work in making Feb. 29th last, a National Fish Day. The day was a great success throughout the Dominion and brought excellent results. The Next National Fish Day to be held next September will be handled by the Publicity Committee of the C.F.A. and the Tuesday Fish Day inaugurated then.

Fisheries at Toronto National Exhibition.

The Association endorses the action of the Marine and Fisheries Department in subsidizing a Fisheries Exhibit at the Canadian National Exhibition every year. The Exhibit has undoubtedly been the means of increasing the consumption of fish throughout Ontario, and it is recommended that the Government increase the educational methods of advertising fish and subsidize exhibits at other exhibitions througout the Dominion. The Secretary was instructed to write the President of the Canadian National Exhibition and request him to feature the Exhibit and appoint another Fisheries Day at the Exhibition.

New Members.

The following new members wer admitted to the Association:—Robert Christie, J., St. Peters, C.B.; F. C. Crean, Natashquan, Saguenay Co., Que.; N. S. Cornell, Producers Fish Co., Port Stanley, Ont.; Capt. Howard Anderson, Digby, N.S.; Harold G. Connor, Montreal, Que.; A. W. Sterrett, Vancouver, B.C.; R. R. Payne, Vancouver, B.C.; Russell Hodge, Montreal, Que.; Capt. Frank Young, Arichat, C.B.

Several other matters required the attention of the meeting — notably that the next Annual Convention be held in either Vancouver or Prince Rupert. After considerable discussion it was felt that the Convention should be held at some place in the Maritime Provinces as the majority of the members hailed from there and had been coming up to the two previous Annual Meetings. It was suggested that the next Convention be held in Halifax and the following one on the Pacific coast. Nothing definite was decided and the matter was held over for consideration. The meeting then adjourned until sometime in July.

A handsome silver and enamel button-hole badge of the Canadian Fisheries Association can be obtained by members from the Secretary on receipt of 52 cents. Address 600 Read Building, Montreal.

SOME DEEP SEA FISHERMEN'S EXPERIENCES

(By R. P. GETTY.)

Part II.

Our fisherman stopped for a moment to catch his breath, and relight the short-stemmed pipe.

"Just time for one more yarn, for I must'nt forget that I am expected up the street."

We nodded for him to go ahead.

"Let me tell you then about the wreck of the Yosemite near Ram Island, off the shore of Nova Scotia, as I've heard it from survivors," he continued.

"This schooner was scudding along under a stiff breeze when without any warning she brought up hard and fast on a sunken ledge, and in an instant was at the mercy of the breakers, the seas washing her further and further up on the rocks, and swingin' her around broadside as they did so.

And this, then, was the situation of the men on board. Clingin' to the forerigging were the skipper and three of the crew, while aft, in the main rigging, the remainder held on as best they could.

But it was not to be for long. The vessel broke up quickly quickly under the heavy seas, the main and most of the foremast went over the side, and all hands with them.

And then came a struggle for life, a battle to reach and gain a foothold on those slippery rocks. But it was finally accomplished, though not without its toll, for when the roll was called one man was missing, while the captain lay there bruised in one knee so he could scarcely crawl. And a member of the crew was so crushed by a falling mast that his death seemed nigh.

But even then the men were not safe, for it was high tide, and every succeeding breaker threatened to hurl the survivors to their doom. Wrecked men, however, catch at anything. They secured bits of floating timbers which washed up from the wreck, and twisted these into crevices in the rocks. Then lashed themselves with ropes to these improvised stakes, and held on in the midst of that terrible gale and a blinding snow storm hoping against hope that something would turn up. At midnight the man so horribly crushed by the falling mast died, but still undaunted that brave band watched and waited. And when morning came they were rejoiced to see that between themselves and Ram Island half a mile distant another ledge was visible which was bare of water. How to reach it was a question, for it was impossible, at least so it seemed, to do this in all that raging sea.

About the middle of the afternoon, the skipper called over to Rose, one of the crew, and known to be a fine swimmer, and told him in unmistakable language that another night on that rock meant death for all. That some heroic means of rescue must be attempted, and at once.

Rose did not say a word, but silently he crawled over to the edge of the rock, and carefully noted the action of the waves and eddies. Then scanned the sides of the further ledge as if picking out a landing place. Then he disrobed himself of everything but his underclothes, and, with a cheer from his comrades, plunged headfirst into an approaching wave, and with bold stroke struck out for the further ledge now showing through the breaking surf.

His companions watched his struggles, now on top of one wave, now swallowed up by the undertow of another, now on some crest again. It looked as if he never could make his destination. But at last, with a strength that to the watchers appeared superhuman he did manage to reach it, and, springing on shore, waded through the surf to the Ram Island beyond, then ran along a rocky beach as if looking for assistance.

It was in vain, for he quickly returned to where he started, and once more waded through the surf to the inside ledge.

'It's no use, boys, there is no help!' he cried out. 'You must each swim for it. Come on, one at a time, and I'll try to help you.'

And then, as by act of Providence, a logline which all day long had been tossing about in the waves in front of them, and always eluding their grasp, by some lucky chance was brought within reach. One man seized it and promptly made it fast around his waist, and sprang into the sea. Rose was ready for him, and, as he neared the ledge, helped him to land. Then the two made fast a stouter rope, and on this the others came over, hand over hand, to the ledge. All but the skipper who had to be lashed to the rope. And finally, like Rose before them they reached the island where they found shelter in an abandoned fishhut.

Inside was an old stove, several pieces of wood, and most fortunately two or three matches.

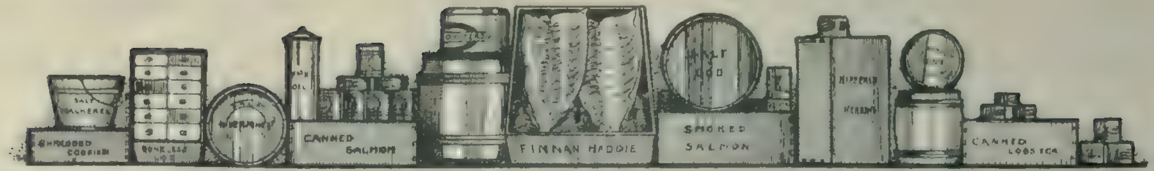
Cautiously they struck a precious splinter on a dry spot. It burst into flame. A fire was started which soon blazed brightly, and then, to make rescue surer, they tied a coat to a pole which they stuck up in a conspicuous place on shore.

The next morning fishermen on the mainland saw the signal, and, when the waves had receded sufficiently to launch a small boat, went out to the Ram Island and rescued all hands."

At this moment our fisherman pulled out his watch and noted the time. He sprang up with a start.

"Got to be going to meet that fellow. So long." And he was up towards the main street of Yarmouth before we knew it.

Mr. T. W. C. Binns, manager of the Fish Department of the Matthews-Blackwell Co., Ottawa, has been writing up a series of first rate fish talks for the Ottawa Free Press. The articles are published weekly and have excited a lot of favourable comment. Mr. Binns has a son with the Canadian Artillery "somewhere in Flanders" and another has recently enlisted in an overseas battery. Our friend believes in being patriotic both to the Industry and the Empire.



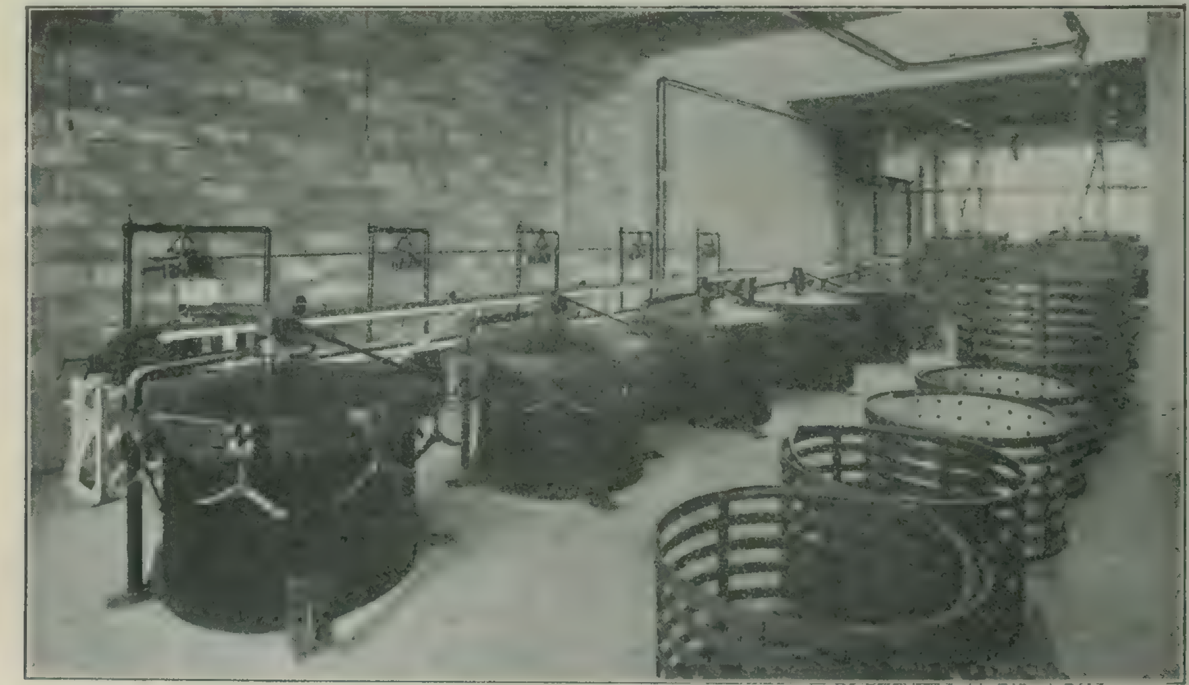
The Sardine Canning Industry

By J. F. CALDER.

Part II.

The steaming room is about 7 x 15 feet, made into four compartments each holding two racks. When the room is filled with racks the doors are closed and steam is turned on from perforated pipes which are around the inside walls. It takes from eight to ten minutes to cook the fish by this method. From the steaming room the racks are next taken to the drying room.

This is a very large room, containing at least five hundred feet of floor space. A great quantity of steam pipes (not perforated) are inside. In one end of the room there is a large fan which is about nine feet in diameter and driven at the rate of about two hundred revolutions per minute. By this means hot air is driven through the flakes with great force, which thoroughly dries the fish in about thirty minutes. The racks are then sent to the packing room. After the fish have cooled off they are packed in the cans. A packing room of one of the large canneries contains from 75 to 150 girls. They carefully yet very rapidly fill the cans. As the fish have been cooked with their heads on the first act to be performed in the packing process is to remove the heads and entrails. The girls do this with common scissors. They receive 12c per case for packing. A good packer can do over 30 cases in a day. Waiters take the flakes of fish from the racks, place them on the tables from the packers, take away the flakes when emptied, place them in another rack and wheel them back to the flaking machine so that they can be refilled with raw fish. As fast as the cans are packed they are placed in trays, each holding 25 cans in one tier only. When 4 trays—or one case—is completed by the packer they are taken to the automatic oil filling machine. This machine fills all the cans in the tray at the one discharge, each can receiving the requisite amount of oil. The cans are then taken to the closing machines or sealing machines as they are generally called. They are really double seaming machines, as they roll the flange on the top of the can and the edge of the cover into a double seam. These machines are large and expensive, weighing about 4,500 pounds each and costing about $2,000,00 apiece. They work automatically and very rapidly, each machine closing cans at the rate of 35 per minute.



Bath Process Room, Lane, Libby Fisheries.

The cans now being filled and hermetically sealed are put in the bath tanks for final process. There are two kinds of bathing processes. One is the old-fashioned tank filled about half full with fresh water and with a perforated steam coil at the bottom. The cans are thrown into the boiling water and remain there from 1½ to 2 hours, according to the size of the fish, as large fish require a longer process than small ones. The cans are dipped from the bath tanks with chain scoop nets and thrown on the floor, or chute, as the case may be, and covered with clean sawdust. As the cans are very hot when taken from the bath the sawdust retains the heat for a considerable length of time. The cans are stirred around into this sawdust for the purpose of removing extraneous oil and water. When the cans are taken out and brushed off they are bright and clean. They are then thrown on the cooling tables where they remain until the following day when they are tested and put in cases to be shipped away and sold. The other bathing process is the retort or dry steam, which I will make mention of in connection with the fried sardines.

As already stated some of the operations of the frying process are similar to those employed in the steaming method; then again all canneries—no matter which method they employ — are not exactly alike, and, consequently a detailed account of the canning process of any particular one would in some essentials differ from those of another. With this explanation I may state that the short account I am about to give of the frying process is a narrative of the manner in which it is carried on at the Lane, Libby Fisheries, Chamcook. The fish are taken from the boats in the same manner as at the other canneries. The sluice-way carries the fish to an automatic separator. The separator is a large revolving spiral coil made of iron pipes. The fish are inside this revolving coildrum. The spaces between the coils are graduated, so that different sized fish pass through the different spaces. Each grade of fish as it comes from the separator enters it's own particular sluice-way and is carried to the cutting machine below. The cutting machine is a wonderful invention, consisting of a set of revolving knives which cuts off the heads and tails in any desired length. Two of these machines can do the work of 100 girls. After being cut the fish are conveyed to pickling tanks where they are immersed in strong pickle for a short time. Then they are conveyed in elevators to the flaking machines, which is similar to the one already described. After being flaked and the flakes placed in racks the racks then go to the drying room.

This room is well supplied with steam radiators, and a temperature from eighty to ninety degrees is maintained. Large fans drive the hot air among the fish. As the air heats and expands it takes up the moisture and leaves the fish dry and firm. Here again the size of the fish and climatic conditions play an important part. On a fine day, when the atmosphere is light the drying takes about half an hour. It takes fully an hour to dry them on wet days. I might explain that unless the fish are thoroughly dry they break into fragments as soon as they come in contact with the boiling oil. From the drying room the fish are taken to the frying room. The frying tank is a steam jacketed kettle about 17 feet long and 4 feet wide, filled about half full with Winter Pressed Cotton Seed Oil. The sardines are removed from the flakes and placed into clean wire baskets before they are fried. This process takes from ten to twelve minutes, according to size of the fish. As the baskets of fish come from the frier they are set to one side to cool. They are then carried by means of an elevator to the packing room above. The baskets are set on the tables and the girls at once begin to fill the cans. The tables have a polished sheet steel top and are kept in a state of utmost cleanliness. An automatic endless chain conveyor passes through the middle of the tables, and as fast as a can is filled it is carried to the automatic oil filler, and from there to the sealing machine.

There are two kinds of sardine cans now in use. One is the "drawn" can, which is pressed out of one piece of tin, excepting the cover which is rolled on after the can is filled. The other kind is the key-opening can. The bottom of this can is soldered to the sides by passing over a gas flame. One corner of the bottom has a protruding lip. A key fits on this lip and with it the

Packing Room, Lane, Libby Fisheries.

bottom can be rolled off the can. This is much better than cutting it open with a can opener. The tops of these cans have been dipped in solder, and after being filled and put through the double seaming machine, they again pass over gas flames, which come in contact with the edges of the can only yet with sufficient heat to melt the attached solder and thereby hermetically seal the cans.

After being "sealed" the cans are placed in steam retort baths, where they remain from one and a half to three hours. The retorts do not contain water, but very great pressure is produced by the dry steam. The bath is not for the purpose of cooking the fish, as they are well cooked when coming from the fry kettle; it is rather for sterilization purposes. I might add that the strong pickling which is given sardines at the canneries is not for the purpose of preserving the fish, as that is done by the cooking and bathing processes. The pickling is for the purpose of flavoring the fish. After passing through the retorts the cans are made ready for shipment by similar methods to those at the steaming canneries.

A hogshead of sardines of the proper size make about twenty-five cases of the canned articles. Each case contains one hundred cans. The contents of each can is a little less than four ounces. It takes about three-quarters of a gallon of oil to fill a case of sardines.

It was the object of the first canners to put up an article that would sell in competition with French sardines. For a time they put up excellent goods, but as more and more firms went into the business, and as each one was anxious to pack more cheaply and to under-sell the others as well, the standard of the pack soon deteriorated. This state of affairs continued until about eight years ago. A great awakening then took place among the canners. They began to realize that in order to build up a permanent business they must exercise greater care in packing the goods. From that time until the present each season has seen radical changes in the process. With this betterment of conditions the business is steadily growing and the quality of canned sardines is constantly getting higher. Investigations and researches carried on by eminent chemists in connection with the Pure Food Regulations of the United States have greatly assisted in this work. At the present time the canners on both sides of the border are bending their energies towards producing an article that will not only meet the demands of the domestic market, but sell in competition with European sardines in their own home markets. Truly, their motto is now quality and not quantity.

In addition to the two and one-half million cases which is yearly packed in the State of Maine, the New Brunswick canneries puts up about one hundred thousand cases. It takes an enormous quantity of young herring to supply the sardine demand. From time to time the cry is raised that the business will ruin the herring fishery of the Atlantic Coast, as it will be impossible for the herring supply to keep up with so many small ones being taken. The writer is not apprehensive in this respect. In fact, all those who are engaged in the business, canners and fishermen as well, have unbounded confidence as to its future. I can best express the views of many of the fishermen in this regard by quoting from a speech delivered by an aged, respected, and practical fisherman from Seal Cove, Grand Manan, at a meeting of Charlotte County fishermen held at St. Andrew's some twelve years ago. At this meeting a number of speakers had given it as being their opinion that unless two weirs in the vicinity of the spawning ground at Southern Head, Grand Manan, were removed the herring fishery would be ruined. The old gentleman in question owned a share in one of them. After the other speakers were through he spoke, as near as I can remember, as follows: "I have listened with interest and amusement to the remarks of the gentlemen who have just spoken. As they are men of small calibre they fail to take a comprehensive view of the matter — in fact, they entirely ignore an essential fundamental element which must enter into the question. I have been thinking while sitting here of the Divine plan of Creation, which so wonderfully provided for the disposition and balance of all the tremendous forces of nature — which said to the turbulent tides hitherto shalt thou go but no farther, and set the stars in their proper courses — when I came to consider all of this and at the same time am told that the herring supply of the Atlantic Ocean is dependent upon the inactivity of a few fishermen at Seal Cove, Grand Manan, I say, gentlemen, you compliment us."

I am not giving the views of the old gentlemen as being in accordance with my own views in the matter. I believe that the restrictive regulations for this fishery which are in force are very essential and necessary for its preservation. At the same time when we come to consider the wonderful fecundity of the herring family, the immensity of the ocean space they must occupy, with its many unknown and unexplored spawning grounds, we are safe in assuming that there is no immediate alarm with regard to the extermination of the herring by the operation of sardine canneries. But rather as the business grows and expands the value of the herring fishery will be greatly increased thereby.

Oystermen's Convention

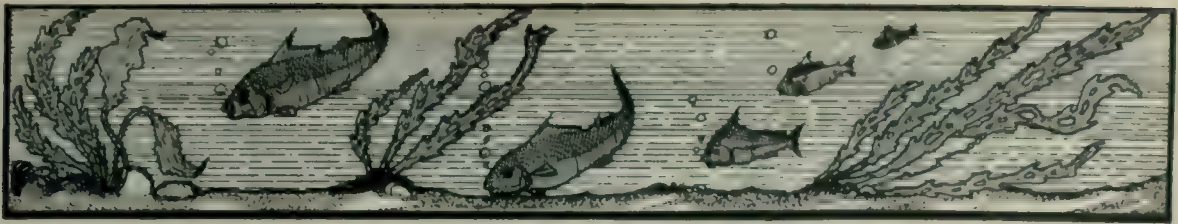
The eighth annual Convention of Oyster Growers and Dealers of North America was held at Hotel Breakers, Atlantic City, N.J., May 16th and 17th. A meeting of directors was held on Monday evening, May 15, at which important business was transacted, and matters prepared for submission to the general meeting on the following days. The general meeting was called to order by President W. H. Killian, Baltimore, Md., at 9.30 a.m., Tuesday, May 16. At this session reports of officers and various committees were submitted, and after being read were accepted by vote. Directors were also elected for the coming year, each State being represented pro rata, according to number of members. Canada was allotted three directors, one each for the Provinces of Quebec, Ontario and Manitoba.

The meeting convened after lunch and the following officers were elected for the year:

President, W. H. Killian, Baltimore, Md.; First Vice-President, Frank J. Darling, Hampton, Va.; Second Vice-President, F. S. Beardsley, Stratford, Conn.; Third Vice-President, J. W. Stubbs, Boston, Mass.; Secretary, E. D. McCarthy, New York; Treasurer, H. Leroy Lewis, Bridgeport, Conn.

A number of the members were accompanied by their wives and daughters, this being a feature of the Oystermen's Annual Convention, and the Ladies' Re-

(Continued on Page 206.)



JAMESON ENQUIRY INTO FISH PRICES

Commission completes evidence and makes recommendations.

The inquiry into the discrepancy in the prices paid for fish by the consumer and that paid to the fisherman has completed its evidence. This was very exhaustive and included the evidence of departmental officials, representative wholesale and retail fish men, and officials of the railroad and express Companies. The inquiry was instituted by Mr. Clarence Jameson, M.P. for Digby County, N.S., and the sessions were held in Ottawa.

The evidence amounted to almost 300 pages of Hansard and the examination of witnesses was thorough and searching. We publish herewith the conclusions of the Commission.

Having had under consideration a Resolution referred by the House to the Committee, relating to the Spread in price of sea foods in Canada, between the points of production and consumption, and having examined witnesses under oath in connection therewith, Your Committee ask leave to herewith transmit, for the information of the House, the evidence taken together withthe following conclusions and recommendations:

CONCLUSIONS

The demand in Canada is chiefly for fresh frozen, and mildly cured fish.

That there is at present serious delay in shipments by fast freight.

That there is at times deterioration in the quality of fish when shipped by express, owing to lack of suitable equipment.

That express carriers are not giving westbound carload rates; are unwilling to open the car in transit to set down part of its load, and are charging rates which seem to be heavy for the service given, and which are greatly in excess of those on the same commodity eastbound.

That a shrinkage in weight, between the fisherman and the retailer, amounting to as much as 15 per cent occurs, due in part at least to lack of proper refrigeration in transit, and a further loss of 5 per cent to 10 per cent or more occurs in retail stores; those poorly equipped losing most; and all such loss is charged in the price paid by the consumer.

That the average cost of delivering fish from the retail store, to the consumer, in cities, is about 1 1-2 cents per pound.

That an inferior quality of fish is being supplied to consumers in interior markets at high prices, imposing an undue burden on the consumer and preventing the increased consumption of what should be a cheap food and more extensively used.

That the shippers' price at points of production of fish, annually consumed in Canada (according to Departmental Reports) is roundly $15,000,000, but under present conditions the cost thereof to the consumers in Canadian centres would probably be $45,000,000.

That the marketing of largely increased quantities of sea foods in Canada await the proper organization of its distribution (insuring a good article at fair prices) and the education of the people, both as to its food value and the most attractive method of serving it.

Clarence Jameson, M.P.

That the industry can be greatly stimulated, and a saving of millions of dollars to the people of Canada effected by more highly organized methods of distribution, while increased consumption will tend towards reduction in cost.

RECOMMENDATIONS.

1. That inspection of transportation of sea foods,

and organization of the distribution thereof, be undertaken by the Department of Agriculture in respect to certain farm products.

2. That the express facilities be so improved as to insure daily transportation of sea foods from the east by means of the chilled car service.

3. That the refrigerator car service for the transportation of sea foods be so improved as to render it available on express trains.

4. That the consolidation of shipments for different points in the express refrigerator car, on the basis of carload express rates, to the farthest point, and the opening of car in transit to set down fish at different centres en route, would materially aid prompt and economical distribution of sea foods.

5. That a carload lot express rate, substantially lower than the L.C.L. rate should be fixed on sea foods from the east.

6. That the minimum freight carload quantity, on the Government Railway, be reduced from the new scale of 24,000 pounds to the former scale of 20,000 pounds, in the case of fresh sea foods; and from the new scale of 30,000 pounds to the former scale of 24,000 pounds of cured sea foods.

7. That transportation companies should give special attention to the movement of cars containing perishable food commodities, to secure delivery thereof without deterioration.

8. That an exclusive express service operated by the Government be inaugurated on the Intercolonial Railway and Prince Edward Island sections of the Government Railways, as a preliminery to any general scheme for the nationalization of express business in Canada.

9. That the fish diet be made a special feature on the Intercolonial Dining Cars, the price not to exceed the cost and expense of serving the same, as shown by the evidence.

NOTE.—This would be in line with the policy of certain important railways which make a special feature of food products peculiar to the country traversed by such railways, tending to increase the consumption and advertise the product.

10. That an active publicity campaign be organized by a competent person to promote an increased demand for sea food in Canada.

11. That the Department have made, for demonstration purposes:—

(a) An inexpensive refrigeration box, suitable for use in retail fish stores, in which fresh fish can be attractively displayed without risk of deteriaration.

(b) A portable refrigerator, suitable for use in the distribution of sea foods in towns and cities; and that plans and specifications thereof, with estimate of cost, be furnished by the Department upon application.

12. That the existing scale of the Government aid in the transportation of certain sea foods by express be for the present continued under regulations as to methods of shipments.

13. That the steps already taken to promote the packing of herrings by the Scotch method are approved, and that special attention be given to the development of this branch of the Industry.

AND your Committee further recommend that the said evidence and report be printed as an appendix to the Journals of the House, and in pamphlet form to the number of 25,000 copies, and that Rule 74, relating thereto, be suspended.

ARTIFICIAL DRYING OF FISH.

By COLIN McKAY.

While a number of Canadian fish companies have been operating artificial curing plants for some years with considerable success, undoubtedly the great bulk of the catch is dried on flakes in the open air. Some of the biggest firms in the Maritime Provinces still employ this ancient and natural process. Possibly fish cured in the open air under favorable conditions may be more palatable, but this method has certain disadvantages, and in the long run is less economical, compared with the artificial process. When cured in the open air fish are liable to be sun-burnt, and may suffer a certain deterioration if there is not a proper sequence of days when the weather is suitable for drying; besides, their condition may be affected by the dust and dirt which falls upon them day after day. Heaped in piles as they are during the nighttime, or wet weather, they, or a percentage of them, absorb moisture from the air; that is to say, the process of drying is repeatedly interrupted, or even set backward—probably with the effect of disorganizing the tissues and affecting the flavor.

Artificial drying avoids these disadvantages. Among the French, who for centuries have prosecuted long distance fishing on the banks of Newfoundland, Iceland, and West Africa, and have given special attention to the curing of dried fish, the process of drying by artifical heat is considered a great improvement on the "procede ancien de se'chage sur galets"—drying on pebble beaches. By the artificial process, the clean air circulates better about the fish; evaporation is more rapid, and the drying more steady and complete. Since the heat is constant—not like that of the sun, which varies with the obliquity of its rays—the risks of "burning" are diminished. Another thing, the fish are protected from dust and dirt. Moreover, experience has demonstrated that the fish lose less of weight, and do not require so much salt.

There are various systems of artificial drying, but the principle of each is the same. The original system was merely based on the principle on a smoke house; heated air, minus the smoke, was injected into a shaft or lofty chamber, filled with fish on stages or flakes, and ejected by fans, at the top. The original system was, I think, first adopted an extensive scale, by Americans; but it was not long before the French adopted an improvement. The most approved artificial drying system in France differs only in the arrangements for setting up warm currents from all directions. The air enters the chambers where the fish are placed for drying by a great number of small openings, being first heated and freed of humidity by passing through a series of heated tubes. The ventilating system is so arranged that the warm air circulates freely about the fish before being expelled. Usually the air in the drying chambers is kept at a temperature varying from 86 to 90 degrees Fahrenheit. For fish intended for home consumption the time occupied in drying varies from 12 to 18 hours, while for products destined for markets in warmer climates the process takes about 36 hours. The French method makes the fish very dry and firm, a quality which tends to its preservation in warm climates.

Who's Who in the Fishing World

Mr. A. W. Piccott, Minister of Marine & Fisheries for Newfoundland was born in the historic town of Cupids, forty-three years ago. When a boy of fifteen young Piccott left the school of Cupids, which was taught by his father — perhaps this is why he left— and went to sea. In this capacity A. W. Piccott travelled all over the world, and acquired that broad knowledge of men and things that afterwards proved if inestimable value to him.

After a long experience as a seaman during which time he rose from man before the mast to captain, Mr. Piccott became attached himself to the life saving station at Sable Island, and here he remained till 1908.

In this year Mr. Piccott returned to his native village, Bay Roberts—and whether coincidentally or significantly, Mr. Piccott prefers the former, this was the year of one of the greatest elections ever held in Newfoundland.

Sir E. P. Morris broke away from the old Liberal Party,of which he was Attorney General, and which was led by Sir Robert Bond, and formed a new party which was christened "The People's Party". Some of the members of the Liberal Party followed Sir E. P. across the floors of the House, but the great majority preferred to remain attached to the Liberal ranks.

To storm the old and reverenced strongholds of Liberalism was an almost Herculean task, and Arch. Piccott was chosen by an overwhelming majority of his fellow "People's Party" townsmen to stand as member for the District of Harbour Grace, where Liberalism was rampant.

With his other two colleagues for that district Piccott took the field, and the hardest political battle ever waged in Newfoundland was fought. It was a case of the old and respected fighting the young and determined.

All throughout the country the struggle was evenly divided, and at the counting of the votes it was found that the election was a tie, and in Harbour Grace Dist. Arch. Piccott headed the poll, bringing one of his colleagues safely through with him and losing the other by the small margin of one vote. From this moment A. W. Piccott was recognized as a "strong" man. To have turned Harbour Grace "People's Party" was to have accomplished the impossible.

A recount was ordered for Harbour Grace. but this time the Liberal Candidate won by two votes. To break the deadlock there was no alternative to appealing to the country again in a general election.

The Election took place in May 1909. In this election Mr. Piccott headed the poll again and brought his two colleagues safely through with him by big majorities. Thus the Morris Party were triumphant, and A. W. Piccott became Minister of Marine and Fisheries.

Directly on his entrance to his new office Mr. Piccott began a series of reforms in his department which have contributed more for the general good of the Colony than all his predecessors did together. His first work was to establish numerous Light Houses and Fog alarms around the coast, a work which has been wonderfully beneficial to the Fishermen. He was also instrumental in having the Government purchase a Dredge of large capacity in England. which has since been used with excellent results in dredging numbers of harbours around the coast. Another great work that Minister Piccott has done since his tenure of office has been to add considerably to the number of Marconi Stations in use on the Labrador Coast to inform the fishermen of the whereabouts of the fish.

A fishery and bait intelligence service has has also being established throughout Newfoundland, and has resulted materially in adding to the annual size of the catch.

Minister Piccott has added hundreds of other reforms which this article is unable to treat of. His worth to his office is due to the fact that he is thoroughly acquainted with all the needs of the fishermen, and every day of his life he makes it his business to go among them and personally ascertain their needs.

In the General election of 1913, Mr. Piccott saved the Morris Government defeat, and since then is the most powerful man in the Government. His success may be accounted for in two words, his popularity and kindness. There is scarcely a fisherman in his District that he has not befriended at one time or another, and his generosity is known to everybody in the country, so that while Minister Piccott may not be the richest man in his party, there is no doubt whatever that he is the most popular.

He is one man whose work the Opposition seldom if ever criticises, despite the fact that his Department is the most important of all, in this country.

In the House of Assembly the party spirit goes overboard when there is any doubt of its clashing with the Department of which he is the Head.

Thus he is regarded by nearly everybody in this Country as a man who has done more than any single man for the protection of the fisheries of Newfoundland.

THE SALMON SEASON IN NORTHERN BRITISH COLUMBIA WATERS HAS BEGUN.

The northern Pacific fisheries, take in the rivers and inlets from Seymour Inlet to the Naas River. The Fraser River operations start in the middle of June.

Spring salmon do not run largely in the north till after May 1st. This year Spring salmon will be canned by the northern canneries. Steelheads will not be canned, but will be sold fresh. The demand for canned salmon this year will be good. The canners plan to can Humpbacks, some Cohoes and Dog salmon, and all the Sockeye.

Prices for fish on the Skeena and Naas Rivers are 20 cents a Sockeye and to the independent fishermen 25 to 27 1-2 cents. At Rivers Inlet the price will be 15 cents a fish. At Alerts Bay the fish bring 10 cents.. On the Fraser River, the price is 35 cents.

It is believed that it wil cost at least 30 per cent more to operate a northern cannery this year than it did last. Cans are 14 per cent higher.

The B. C. Packers Association will operate all their northern canneries. They are equipped with sanitary lines, and manufacture their own cans. On the Skeena, M. K. Dickinson is superintendent of the Balmoral, the Cunningham, the Dominion, and the Alexandria canneries. A. Lyttons is foreman of the Balmoral, and J. McMillan at Cunningham's. On Rivers Inlet, Frank Inrig manages the Brunswick and Wadhams. On the Naas, Graham Chambers is manager. On Lowe Inlet, W. E. Curtis, At Bella Bella, J. B. Sainte, and on Alert Bay, Robert Chambers.

The Anglo-B.C. Packing Company, Limited operates all its northern canneries this year. On the Skeena River, A. Kipp is manager of the British America Cannery, with R. Carter, foreman, and B. Larsen manages the North Pacific Cannery. On Rivers Inlet, A. Jensen, the Good Hope Cannery; on the Naas River, W. E. Walter, the Port Nelson and the Arandale; on Knight Inlet, F. Wigham.

The Gosse-Millerd Packing Company, R. C. Gosse manager and F. Millerd, secretary, operate at Bella Bella. Manager Gosse and his son Richard Gosse are up north.

The Kildala Packing Company, Limited, General Manager G. A. Buttimer. On Rivers Inlet, Dan Groves manager at the Kildala Cannery. On Dean Channel, G. Dawson, the Manitou.

M. Desbrisay & Company, manager M. Desbrisay, cannery at Wales Island, with Jim Desbrisay in charge.

The Wallace Fisheries, Limited, canneries are equipped with sanitary lines, with can making machines. On the Skeena, the Claxton Cannery, managed by Tom Wallace. A new two-storey building at a cost of from $10,000 to $12,000 has been built. On Rivers Inlet, A. E. Forrey manages the Strathcona Cannery. On Smiths Inlet, George Harris, manager. At Uchucklesit, A. J. Martin, manager. On Queen Charlotte Island, J. Mackenzie, manager.

The Cassiar Packing Company, Limited, Manager J. Lamb, on the Skeena.

The B. C. Fisheries, Limited, have leased their cannery up north. Wm. McPherson is manager at Skidegate. A. L. Russell is interested.

The Redonda Cannery and Cold Storage Company at Deceit Bay, has received its cannery licenses, and will build its plant this year.

The Preston Packing Company, Limited, at Charles Creek, Kingscombe Inlet, will operate this year. Wm. Hickey is interested in it.

R. V. Winch & Company, Vancouver, will operate their cannery on the Skeena, also the Draney Fisheries plants on Rivers Inlet and the Kincolith cannery and cold storage at Mill Bay. F. A. Futcher is the new General Manager for this company. Fred Rudge will be superintendent. On the Skeena River, Hermons, managed by Fred Rudge, with foreman R. Berryman. On Rivers Inlet, the Namu Cannery, Marshall English, manager, and F. Murray, foreman. The Kimsquit Cannery, manager Charles Draney, and Archie Moore as storekeeper and bookkeeper. On the Naas River, the Kincolith Packing Company's cannery J. T. Cousins, manager.

John Wallace, Work Island, B.C., will operate his plant as usual.

The Clayoquot Sound Cannery Company, manager J. L. Beckwith, H. C. Brewster is President of the Company.

The Quathiashi Packing Company, manager W. E. Anderson, Quathiashi.

J. H. Todd and Sons, Victoria, operate two canneries in northern waters. Recently sanitary lines have been installed. On the Skeena, R. Johnston manages the Inverness Cannery. On Rivers Inlet, the Beaver Cannery is managed by R. Johston, from the Inverness.

The B. C. Canning Company, Victoria, have three canneries in the Northern Pacific. The Oceanic, the Rivers Inlet, and the Victoria B. C. Mess is the general manager.

The Goletas Fish Company at Shushartie Bay, Vancouver Island, with W. J. Jefferson manager. E. A. Hamilton acts as purchasing agent in Vancouver. This company is to fish on Rivers Inlet and Smiths Inlet for Sockeye, having been given a boat rating of 30 independent boats at each inlet.

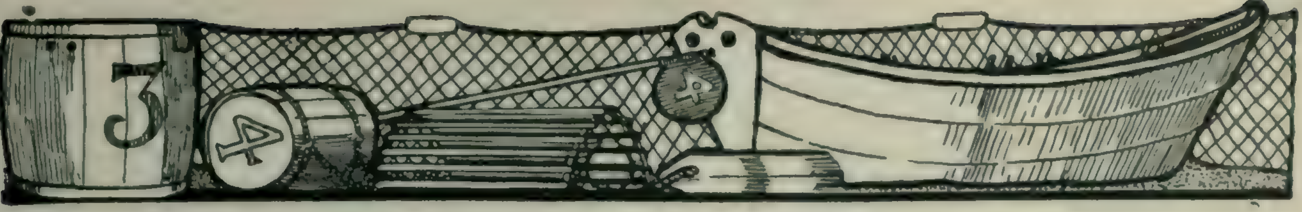
OYSTERMEN'S CONVENTION.

(Concluded from Page 202.)

ception Committee was formed to look after visiting various points of interest, thus permitting the ladies to become acquainted who had come from various parts of the United States and Canada.

At the close of the Convention the annual banquet was held on Wednesday evening, at which members and their ladies sat down to the number of about two hundred and fifty. The toast-master was D. J. Byrne, of Montreal, President of the Canadian Fisheries Association, who was appointed to this important post as a graceful compliment to the Canadian contingent. Among the speakers were Mr. F. C. Round, of the New Jersey Shell Fish Commission; Hon. F. L. Homan, New Haven, Conn.; F. S. Beardsley, Stratford, Conn.; W. J. McClusky, Wheeling, West Va., who is noted as the orator of the Association, and who delivered a splendid address in proposing the toast to the ladies.

From every viewpoint the Convention was an immense success, and well repaid the members who had travelled from all parts, some coming long distances, to be present at this most important event in oysterdom.



THE ATLANTIC FISHERIES

CANSO, N.S.

(Special Correspondence).

Since my last previous writing a couple of months ago, things have, of necessity, been rather quiet in the shore-fishing so far, at least, as the local boats are concerned, but the onward march of spring, with more favorable weather conditions, ought to soon produce a more active aspect of affairs. Judging by the large fares of the two steam trawlers, which operated out of this port during the winter months, there has been no lack of fish on the grounds. The Rayon d'or, especially, has been and still is, bringing in some very large trips, landing on one occasion, during the early part of April, her record haul of something like 210,000 lbs. She has recently returned from her annual trip to Halifax, for spring-cleaning and fixing up. The ready response to the call of the recruiting officer and the lure of the munition factories, among the local fishermen and fishlanders, has made labor for the prompt handling of some of these catches rather difficult to secure at times. The Andromache, the other steam trawler, which was operating out of this port during the winter, ceased doing so in March. She removed to Halifax at the time, and some remarks attributed to the captain by a reporter on one of the City papers caused somewhat of a "tempest in an inkpot". The reference to "20 miles of ice off Canso", being as it was, quite incorrect, brought forth some sharp replies from defenders of this port, but very often in such cases, the main points at issue get smothered up in side-issues of a more personal nature. Perhaps a few remarks even at this late date, from your correspondent, may not be out of place on this question. While not claiming to be a chronic or incurable truthteller, like George Washington of the old schoolbooks, yet, in this case, remembering the reliable character of the FISHERMAN, I will make a special effort to hew to the truth. It is certainly a fact, that some years we are visited more or less by a certain amount of drift ice, which occasionally proves a little troublesome to lobster fishermen and others. That there is really nothing of this nature as a rule, to interfere with the operating of steam trawlers, however, needs no clearer evidence, than the fact that the Rayon d'or, already referred to, has kept her headquarters at Canso during the last two winters, experiencing no difficulty in making weekly trips, as throughout the remainder of the year.

Lobster season opened up here legally on the first of April, but so far as any practical fishing was concerned about the first of May, as April was more than usually cold and backward. There was a fearcat one time that Great Britain intended placing an embargo on canned lobster, but I believe that assurances have been given that nothing of that kind is contemplated. The price here started at 4 dollars and 13 cents for markets, which has been about the average price for the last few years.

The trappers at White Point were rewarded with a fair run of fish last week.

During the last month the waterfront has been taking on more of a busy and normal appearance in the shipping line. A large number of Nova Scotia and American fishing schooners have been in port, many from home on the spring trip, taking in ice, etc., and in some cases looking for a hand or two to ship. Among the crews the faces of many old acquaintances of Canso as well as a number of former Canso boys have been seen and gladly hailed by their friends and relatives. That veteran of bankfishermen, Capt. Charles Rudolph, of Lockeport, and for many years a skipper out o' Gloucester, was among those in port recently, shipping a man on his way to the Banks. The Capt. looks about as hale and hearty as ever.

Canso now has another weekly boat running from Halifax, namely the S.S. Margaret, which ought to be an indication that trade is not slackening. We shall never be satisfied, however, in the transportation line, until we see a line of the twin rails, a pathway for the iron horse, coming down this coast for a permanent stay.

CHARLOTTETOWN, P.E.I.

(Special correspondence).

Althoug h the lobster season legally opened this year on April the 26th, the presence of ice around the coast prevented fishing in any section on the date. It was not until a week later that lines could be run in safety, and the first fish were landed about May the 2nd. With the exception of a strip of the northern coast of the Island, from St. Peter's Bay up to East Point, where the ice hung around up to the middle of the month, fishing was generally in the waters around the Island the first week of this month, barring, of course, the section from Cape Traverse to Egmont Bay, where the season does not open until the 26th of May.

This year there are about 200 canneries in operation, an increase of eight over last year. These are valued at $200,000. Last year there was considerable uncertainty before the season opened owing to the possibility of the market being curtailed. But this year with the uncertainty removed, there are an increased number of traps in the water, about 390,000 in all, and these are worth on an average about $1.00 each. There are 1,900 boats, half of them motor boats, and about 3,300 fishermen at work.

The fishermen this year received from the packers $4.00 per hundred pounds, where each man supplies his own gear, or $2.50 where the gear is supplied by the packer. Last year the prices were $3.50 and $2.00 respectively. Although quite a number of fishermen have gone to the war, about 150 being in the 105th Regiment at Charlottetown at present, the shortage of help did not prove quite so serious as expected, but in some sections it was found necessary to import some men form the other Provinces. Up to the time of writing fishing has been good, wherever the ice has permitted, and with anything like favorable weather the catch this year should be fully equal to the average. The price paid is between $16.00 and $17.00 per case. Last year the catch was about 42,000 cases, valued at $15.00 each. The fish taken this year are of good size, and the number per trap is larger than it was at this time last year.

On Thursday, the 18th, last, quite a sensation was created among the lobster men by the announcement published in the Charlottetown Patriot that a prominent dealer received a telegram from his head office in Halifax that the French Government had issued a decree prohibiting the importation of canned lobsters on the ground that they were luxuries. As a large portion of the Island pack, probably fifty per cent, finds its way to the French market, the situation will be serious unless sufficient influence can be brought to bear upon the French Government to revoke that decree. At the time of writing the federal members at Ottawa are being communicated with, and it is to be hoped that the threatened danger to the lobster industry may be averted.

The figures given above show what the direct loss would be to the Island if such an important market as France would be denied us.

DIGBY, N.S.

(Special Correspondence).

There has been a scarcity of fishermen this spring, men needed to man the Digby fleet for summer "shacking". This has been brought about by men who previously followed the sea life, enlisting for overseas. Captain Bruns Firth, of the Lila G. Boutilier, wanting 22 men offers wages of $50 a month, and everything found, fishing gear and all. This was the only way he could secure a crew to go summer fishing. It is only during the summer season that fishermen find fishing on shares unprofitable. Captain Arthur Casey, of the Dorothy M. Smart, followed suit and secured his crew of twenty-two men by paying the same wages and other inducements as the captain of the Boutilier offered. Some of the Smart's crew were secured in Yarmouth and Shelburne counties.

One would think in reading the May number of The Canadian Fisherman, that is a reader unacquainted with the facts, that Yarmouth and Yarmouth county supplies all the fish shipments which are sent from that port by the Boston boat. In giving the list of exports by that route the Yarmouth correspondent does not state when the shipments originate, but without the shipments which are sent monthly by such large Digby exporters as the Maritime Fish Corporation, J. E. Snow, D. Sproul & Co., G. W. Wightman, the Nova Scotia Fish Company, and what accumulates at Yarmouth from Digby Neck and the Islands, Yarmouth's fish exports would look very small in print. It is a well known fact that the great bulk of fish shipments from Yarmouth originate in Digby and Shelburne counties.

The schooner Loran B. Snow, Captain John Sims, was the first vessel of the Digby fleet to abandon haddocking and fit out for halibuting. The others of the fleet kept after the haddock until this fish left the Bay of Fundy for cooler waters north and then they fitted for "shacking."

More gasperaux bait has been used here this spring than formerly and the St. John Weir fishermen have profited considerably as a consequence. It is an every day occurrence to see the steamboat dock here full of motor fishing boats which have come from a distance to wait the arrival of the St. John steamer which brings the gasperaux across in barrels, hogsheads and cases, all iced and frost for baiting and soon as the boats get their supply, off they go to the grounds only to arrive back the next day for a fresh supply. The Grace Darling, Captain Ansel Casey, was the only vessel which had had bait brought over by steamer, sailing direct from here to the Banks on her second trip this spring. The other vessels sailed across the bay to St. John to bait up after taking aboard their supply of ice here.

Since the last issue of the Fisherman one Digby fisherman has been lost, William Smith, a native of New Aberdeen, Cape Breton, who was drowned off Gulliver's Cove from a motor boat which was taking him from Digby to Centreville where he intended joining the schooner Lila G. Boutilier, fitting out there for the Banks. His body was received and brought back to Digby for interment. He previously had been one of the crew of the Dorothy M. Smart.

So far this spring only two of the American smacks which generally show up here about this time buying lobsters have put in an appearance. They were from Maine, the Louisa McLoon, of Rockland, and Mabel Gertrude, of Jonesport; when they left the former had aboard in his wells one thousand live lobsters and the latter two thousand. The fleet of American smacks are just now seeking loads more to the westward around Brier Island and the Yarmouth coast and as the season advances they will come Digby way and continue up the bay until the close season arrives. D. Sproul & Co., is the only Digby firm that will be extensively engaged in prosecuting lobster fishing above Digby Gut this year and they operate all along the coast to the head waters of the Bay of Fundy. Messrs. Herbert Anderson & Son, of Parker's Cove, are likewise engaged quite extensively along this part of the coast.

A full carload of finnan haddies destined for Vancouver, is one of the many large shipments the Maritime Fish Corporation made to Canadian markets this month. This particular shipment was sent to St. John by the C.P.R. boat and from that city was placed in a refrigerator car. The whole consignment, packed in fifteen pound boxes, was the new "Imperial" brand, and the red stencilling made them the most attractive looking boxes yet sent out by the M.F.C.

More Liverpool salt has been brought from St. John this spring for fish curing purposes than in former years, which is a pretty good sign that there will be a large exportation of dry and pickled fish from Digby next fall. Small steamers and sailing vessels have been engaged in taking the salt from the trans-Atlantic steamer in St. John harbor and bringing it to Digby.

Thursday, the 11th, two big trips of mixed fresh fish arived in port in the schooners Dorothy G. Snow, Captain Ansel Snow, and Albert J. Lutz, Captain Arthur Longmire. Each of thees two hustling skippers hailed for the same quantity which totalled, when weighed out, very near three thousand pounds. The fish were caught off Seal Island and on Brown's. Each vessel had a record catch, that is a record catch for this year. They have done better than this on one or two previous occasions. The Maritime Fish Corporation purchased the Lutz's trip and J. E. Snow that of the Dorothy G. Snow. Very little of the two catches was shipped away fresh and the work of putting this big lot of fish in pickle gave employment to extra hands.

The auxiliary schooner Cora Gertie has again entered the service of the Maritime Fish Corporation in bringing fresh fish which Captain Crocker buys from boat fishermen down the bay for the M. F. C. The Cora Gertie was in on the 18th on her first trip this season, landing 15,000 pounds of mixed fresh fish. She will make trips twice a week and on her outward sailings takes bait and supplies to the different fishing stations along shore, which service is greatly appreciated by the fishermen.

Schooner Brittania, one of the "Mosquito" fleet of Bay fishermen, is at present engaged in carrying supplies to lobster fishermen up the bay and returning with live lobsters.

Captain William Snow, relinquished command of the Dorothy M. Smart to take a well earned rest ashore after a hard season of winter fishing. Captain Arthur Casey left the Lila G. Boutilier also with this intention but the owners of the Smart asked him to take their vessel and he acceded to their wishes. Captain Casey has now been away from port about a week on his first trip in the Smart, going to St. John for his bait before proceeding to the Banks.

Out of the whole lot of 60,000 pounds of mixed fresh landed by the schooner Grace Darling, Captain Ansel Casey, in her first trip in from the Banks, there were only three thousand pounds of haddock and this goes to show how the haddock vacate the Bay of Fundy for cooler waters at this season of the year.

Judson Handspiker, a Digby fisherman aboard the American Schooner Morning Star, which vessel is commanded and partly owned by Captain Harry Ross, of Digby, was severely injured aboard the vessel when on Brown's. Captain Ross put into Yarmouth and landed Handspiker who was sent on the Boston boat by the American Consul at that port to the Chelsea Marine Hospital.

Schooner Albert sailed yesterday (18th), for the Banks, and calls at St. John for bait. The Dorothy G. Snow will likely get away by to-morrow after baiting up here as the first schools of big herring struck in here to-day (19th) and the weir fishermen are making good hauls each tide. The herring which put in an appearance here previous to this date were too small for baiting purposes but to-day's catch show them to be large as gasperaux. This will save the fishermen considerable expense as the freight charge on gasperaux from St. John amount to sixty cents per barrel and it is to be hoped that those large fine herring will continue to show up in Digby waters.

IN NEWFOUNDLAND.

(From Our Own Correspondent)

During the session of the Legislature which closed on May 5th, several measures which have a direct bearing on our greatest industry came up for discussion; and we have now on our Statute Book some Acts whose operation will have a decided effect on the fisheries. Never before did the House vote so much sessional energy to things pertaining to the fishery; and we are evidently becoming awake to the very patent fact that we have been very remiss in dealing with this important factor in our trade. One thing that impressed us particularly in the debates on fishery matters was the evident attention that even representatives of districts which are not altogether dependent on the fishery, had given to teh study of the questions at issue.

Mr. Piccott, Minister of Marine and Fisheries, fathered most of the measures introduced; he was ably supported by the members of the opposition and Mr. Devereaux. Both Mr. Piccott and Mr. Devereaux spoke out of the volume of experience—the former as a practical fisherman, and the latter as one who has hal a life-long connection with the fish trade. Mr. Devereaux has been to the Mediterranean markets and there studied conditions at first hand; so he is conversant with the requirements of the Italian trade. With a single exception, the Opposition representatives are from fishing districts and are directly concerned with the betterment of fishery conditions.

The new Sealing Bill is a very comprehensive measure, and it regulates everything connected with the sealing industry as regards, owners of ships, masters and crews thereof, and the protection of the fishery. The main features of the Bill are:—

Steel ships over eight hundred and fifty tons shall not sail for the icefields within forty-eight hours after the time fixed for the sailing of wooden ships (now March 13th.)

No ships shall bring into port more than 35,000 seals in any one fishing season; and any surplus above that number shall be confiscated and the proceeds handed over to the Marine Disasters Fund.

The killing of old hoods is prohibited until 1920.

Crews of ships shall not be sent on the ice except between the hours of daylight and dark; and whenever injury occurs to any member of the crew who has not returned within one hour after dark the owner of the ship shall be liable to him or his dependents in the sum of one thousand dollars, in the event of death, or a pro ratio sum for other than fatal injury. These are provision of the Bill as is was amended in the Legislative Council. The original Bill which had been drafted by a Special Committee of the Legislature had a clause prohibiting the employment of ships larger than 850 tons gross, and several sections dealing with the panning of seals. These were eliminated on the petition of the steamer owners.

This Bill which was the cause of many stormy scenes in the House of Assembly owes its origin to the initiative of the Fishermen's Protective Union of which Mr. W. Coaker is President.

The Act for the Protection of Persons Engaged in Trawl Fishing is in reality an insurance scheme for fishermen engaged at the Bank Fishery. It is an amendment of an Act already in existence.

The Act relating to the Herring Fishery deals with every phase of this important industry and should have beneficial results. Hitherto we have not given proper attention to our herring fishery, and the result was an unsatisfactory pack and an unsavory reputation in the foreign markets. The Act provides for the appointment of a Fishery Board to deal with the whole Herring Fishery, to consist of fifteen members. The Minister of Marine and Fisheries is ex-officio president of the Board, whose duties are to make inquiries into all matters pertaining to the preservation, maintenance, improvement and development of the herring fishery, to obtain all the knowledge possible on the subject, and to circulate the same among Herring packers and exporters, with a view to getting the highest price possible for our herring. Inspectors will see that only well packed herring are put on the market. All packages are to be provided with labels, so that the packer of herring may be traced. Get Rich-Quick packers will be penalized.

An Act dealing with Cod-liver oil is also a very necessary regulaton. As in the case of herring, we have not been particular in the handling of this commodity in the past. The New Act sets forth:—

"From the 1st of July, 1916, no person in Newfoundland shall engage in the business of refining Cod-liver oil without first having obtained a license from the Department of Marine and Fisheries, under a penalty not exceeding $100, to be recovered before a Stipendiary Magistrate or a Justice by any person who shall sue for same.

"Any person who after that date shall export Cod-liver oil from Newfoundland, without first having the same inspected and branded, shall be subject to a fine not exceeding $500, to be recovered in a summary manner before a Stipendiary Magistrate, by any person who shall sue for the same; one-half the fine will be paid to the person giving information, and the other half to the Minister of Finance for the use of the Colony."

In addition to the regulations regarding Cod-liver Oil, there is now to be enforced a new system of gauging oils packed in kerosene oil barrels. Fishermen lost heavily by the old system of estimating the quantity contained in such packages; and the new regulation will, it is claimed, bring an additional $40,000 into the fishermen's pockets.

The Seal Fishery.

The seal fishery closed with the arrival of the S. S. Ranger from the Gulf. None of the Gulf fleet fared well, the total catch of the local fleet engaged being only 18,350 seals. The total catch, not including the returns from the "Seal," which discharged at North Sydney, amounts to 241,302 for 11 ships, or an average of 21,936 seals. The total net value is $637,284,-47, of which $212,428.16 was paid the crews, while $25,491.47 went to the captains, their share being 4 per cent net. An analysis follows:

Ship	No. seals	Value	Crews' Share
Sable 1	23,816	$63,666.09	$116.60
Eagle	33,400	73,848.95	133.78
Neptune	34,929	78,348.81	134,27
Bloodhound	18,593	53,941.20	102.15
Florizel	46,481	135,345.51	167.09
Terra Nova	26,853	77,756.67	127.38
Erik	18,377	52,462.48	94.52
S. Blandford	20.503	54,101·98	91.54
Viking	9,427	25,658.03	56.77
Diana	6,178	15,918.03	36.09
Ranger	2,745	6,236.75	14.63

The total number of men engaged at the fishery was 2028—the smallest number within living memory.

In addition to the local fleet the "Seal" (which cleared from Channel) brought some 3,000 seals into North Sydney which apparently wishes to become a rival to St. John's in the seal manufacturing business. The North Sydney Herald discussing this "first cargo of seals ever landed at North Sydney" says that the Marden Orth and Hastings Company, of Boston, has installed a modern ten-horse power grinder to manufacture the "Seal's" cargo. Evidently our Cape Breton friends are very optimistic over this new industry; but, as our Gallic neighbors say, **nous verrans.** The Herald says:—

"Upon the result of this shipment depends the possibility of a modern oil refinery being installed on the Dominion wharf and operated in future, which will really mean the opening of one of the largest industries of the kind in the Province." The industry however depends upon the sensitiveness of the olfactories of the citizens of North Sydney, as there is a difference of opinion whether the odor arising from the operation of such an industry within the town limits, would be such as to permit the business being carried on.

But the agent in charge of the big Boston concern that is going into the refining business thinks that with the equipment he has he will remove all objectionable features. We are not aware of what arrangements the Company have made to procure seals; but we do know that a seal oil plant is a somewhat precarious venture. That there are inconveniences and sundry other items connected with it we gather from the fact that the United Seal Manufacturing Company doing business on the South Side of St. John's was recently disposed of for $10,000, having been sold at public auction.

The sealing venture of the Norwegian steamers which outfitted from Sydney does not seem to have been very successful. The ships have not been heard of for some time; and the general impression here among our sealing men is that, like our own Gulf fleet the Norwegians missed "the fat." As the crews of these vessels get a monthly wage in addition to a bonus on every thousand seals captured, the owners of the Norwegian fleet is likely to meet with a serious financial loss. A sealing outfit is a very expensive one; and a catch of less than eight or ten thousand seals would hardly pay expenses.

Large prices (the largest in many years) are being paid for seal oil and seal skins this season. What the price is, is known only to the members of the inner circle of the business; but with seals at $6 per cwt., it does not need much financial calculation to discover that the prices are extremely high. Oils generally are unusually high, as the demand is abnormal, and uses have been found for both seal oil and seal skins that were undreamed of before.

Seals were reported as being very plentiful to the northward last week. The Light House Keeper at Gull Island, off Cape John reported an immense herd some miles to the eastward. As the time for killing these seals by the ships has expired, the herd will not be interfered with unless they should drift into Notre Dame Bay, when the shoremen will get their innings. It is not unusual for the people around Cape John and in White Bay to gather a big seal harvest when the ice moves into the Bay, during the early Spring.

The only casualties reported in connection with the sealing venture this season occured at Change Islands. Two fishermen, named Scammell, set out to hunt seals some three weeks and have not since been heard of. The government sent the whaler Cabot, under the command of Capt. Kean to search for them; but the search was fruitless. They were presumably driven to sea and lost mid the floes.

Large quantities of seal oil have already been shipped to the United States—the largest and earliest shipments on record. Some 12,000 skins have also gone out to the same market.

The Codfishery.

The exports for April both in dry and pickled codfish were fairly satisfactory, as the following indicates:—

Outports:—

Dry Fish.

To Europe	3,500 qtls.

Salt Bulk.

To United States	3,571 qtls.

From St. John's:—

Dry Fish.

To Brazil	15,097 qtls.
To West Indies	10,776 qtl.s
To Europe	20,148 qtls.
To United Kingdom	4,905 qtls.
To United States	1,192 qtls.
To Canada	1,657 qtls.
	53,775 qtls.

This shows a decrease from shipments in the corresponding month of 1915 of 14.839 qtls. dry fish and an increase of 2.544 1-2 of pickled.

The returns from the West Shore Fishery for the Banking fleet are in the aggregate somewhat short of last year. The high-liner of the skippers was Capt. Thornhill. of Grand Bank who hailed for 1350 quintals. followed by Capt. Vatcher Cluett of Belloram, and Hollect of Burin with 1350. The Metamora. Capt. John Lewis. is possibly the best stocked from a financial standpoint, as Captain Lewis did not leave for the Western Shore till late in February. He must be near the 1000 qtl. mark.

The Board of Trade reports (last available) are:—

The catch from Rose Blanche to Hr. LeCou is 859 qtls with 280 for last week. Local boats are getting a fair share of fish by night sets. There is plenty of herring for bait at Connoire Bay, some 12 miles west of Burgeo. There are no large schooners fishing in this vicinity at present, as they have gone in the Gulf.

Belleoram to Rencontre reports the catch as 6,630 qtls.. with 480 for last week. Bait is reported plentiful by Mr. Curnew, the Custom's Officer at Belleoram.

The result of the western fishery at Burgeo is:—

"Nellie Moulton." 500 qtls.: "Leha." 398 qtls.; "Anita C." 245 qtls.: "Margaret T.." 306 qtls.: "Protector." 307 qtls.:: "Isabella." 245 qtls.: "Hazel," 212 qtls.: "Lurid." 136 qtls.: "Pretty Mary," 303 qtls.: "Florence." 155 qtls.: "Two Brothers." 100 qtls.: "Edna W..." 60 qtls.: "Acme," 80 qtls.; "Dove," 50 qtls.; "Morning Star." 80 qtls. The entire catch amounts to 4.159 quintals, or 224 behind the quantity taken last year up to the corresponding period. The crews numbered 192 men, or 34 more than were engaged last year.

Ramea reports (April 29th) the catch to date as 1950 quintals with 40 for last week. Four dories and 4 skiffs are fishing. Prospects are good and bait is plentiful at Bay de Vieu.

From Eagle Point to Mall Bay (in Fortune Bay) prospects are poor and bait is scarce. The catch of codfish is 2350 quintals.

Mr. Long, Customs' Officer, Marystown, reports that the catch from Jean de Bay to Beau Bois (Placentia Bay) to date, as 595 quintals, with five hundred for the last week.

There is a good report, without details, from Cape St. Mary where most of the Placentia Bay are fishing at the present time. The indications are that the fleet of boats from various points of the Bay are doing well. Usually the Fox Harbor fish "jowlers" are reported with good fares every Spring, so we hope to be able to chronicle an arrival very shortly.

The catch of the Burin Banking Fleet is reported as follows (May 5th):—

Ethal M. Bartlett	850 qtls.
Donald G. Hollett	1300 qtls.
Gordon M. Hollett	900 qtls.
Susan E. Inkpen	1100 qtls.
Marjorie M. Inkpen	900 qtls.
Ella C. Hollett	900 qtls.
Nita M. Conrad	800 qtls.
Miriam May	400 qtls.
Ada D. Bishop	500 qtls.
Mina Swim	700 qtls.
Linus A.	200 qtls.
Vaness A	800 qtls.
Cavalier	200 qtls.
Commander	200 qtls.
Jessie M.	230 qtls.
Bohemia	330 qtls.
Total	11,310 qtls.

The "Marshall Adams," belonging to D. and T. Burke, of St. Jacques has been reported from Bonne Bay with 150 quintals from her first trip in the Gulf. The Adams did well at the western shore, having secured some 950 quintals. The vessel is a new addition to the Burke fleet.

There are indications that the fishery all around the coast will open much earlier than formerly. The Spring has been an open one; and northern schooners are already arriving for their supplies. They will get away to the Straits and the French Shore as soon as they get back to the home port unless we get strong north-easters to bring the ice in again. We understand that some schooners have already left Notre Dame Bay for the Straits; these had secured their supplies from local merchants. There will be quite a race for trap berths by the northern men.

It was feared in the early days of the year that we would be badly handicapped this season for a supply is large, our fishermen will have to pay the highest price ever paid for it—$2.50 per hhd. Those who buy for cash will likely get it at $2.40; but some "credit" dealers will have to pay $2.60. The high price is due to shortage of carriers and consequent excessive freight rates. The S. S. Irthington arrived some days ago from Cadiz with a cargo of 4, 660 tons consigned to Bowring Brothers.

There is still a large quantity of Labrador fish unsold: but the holdings are being reduced as fast as conditions permit. It is possible that the stocks now held will be got rid of by early June, unless recent developments on the other side wil cause a big slump in the markets.

That this may occur is deduced from the following message received some days ago from Messrs. Lind and Couto, of Oporto:—"Food Commissioners have fixed arbitrary selling prices at considerably below current values· We suspended sales of codfish in our stores, being British property, pending representations to Government at Lisbon through the British Minister and British Chamber of Commerce, and personally have done all possible to protect shippers' interests."

Unless some adjustment of this trouble is made, our fish exporters are going to suffer. A maximum sale prices means a minimum profit on sales, and therefore no sales and a vanished market. This, while it applies to present sales, is also going to effect the catch for the season; and a local paper says that "it means lower prices, as with the present enormous freight rates and high prices here, a maximum selling price below current values will be practically prohibitive. Portugal is not a wealthy country, and though financial suffering may be ours, no reasonable kick can come because the Portugese Government is protecting the citizens of the Republic as far as possible.

This is a very serious condition; but it is offset somewhat by the shortage of the Norwegian catch of which returns were posted yesterday:

May 2, 1916.	
Lofoden	14,400,000
All others	27,300,000
	41,700,000
May 4, 1915.	
Total catch	53,000,000

There seems to be considerable difficulty in securing men for the Labrador fishery as our young fishermen will not risk going "on shares;" and outfitters are not willing, generallly, to pay "standing" wages.

Colonial Commerce recently discussed the exodus of our young men who are going to browse in other pastures for the summer; and a correspondent says: "The Labrador fishery, at best, is always a risk, especially so for a man who has dependents. When the voyage is over, if its fails, the time is too short to earn enough to tide over the winter. The younger men find profitable employment elsewhere, though they would much prefer to remain at home. High wages are ruling everywhere just at the present time, and then, there is the necessity of paying much higher prices for all the commodities needed by a man with a family." Then there comes just now another disastrous feature which applies mainly to schooner-owners and trap-crews. Owing to the high cost of motor-fuel many of them will be forced to abandon the use of their motor skiffs this season. Kerosine oil, which sold a few months ago at 17 cents per gallon wholesale is now quoted at 24 cents. Gasoline has advanced from 33 to 48 cents, and will likely go higher. Before the outbreak of the war, fishermen got their motor-fuel free of duty, but they are now obliged to pay 8 cents per gallon duty and sur-tax. So, we shall likely witness a short supply for the Labrador fishery. This, however, may be a blessing in disguise, as we have always found it hard to secure satisfactory results from this branch of our fishing industry. The fact is that we are "waybacks" as regards our fisheries generally, and a contributor to the Daily News hits the nail on the head in an interesting article from which we cull the following:—

"It is a mistaken idea that because a man knows how to set a trap, split and salt a fish, that he has an intelligent grasp of the industry........Our fishermen (as a rule) resent any introduction of change, dislike any attempt to introduce new ideas......Labrabor fishermen will not tolerate the use of trawls and condemn any and every innovation. The age demands new methods, and wise is the man who adopts them. If the Labrador or our other fisheries are to remain of value to the country, changes must take place......Trawling and other methods must be adopted......There may be reasonable grounds for preventing steam trawlers from going on the coast; it may do no harm to keep them out for a while, though as a matter fact they cannot be interfered with when without the three mile limit. But there are other methods which might be reasonably permitted." Our Labrador fishermen understand only one way of fishing; and the sooner they get wise to this the better for all concerned.

Fishermen will have to pay unusually high prices for their supplies this season; every commodity has advanced, and, with the exception of flour, there seems to be no indication that prices will be lower during the season.

The prices ruling in the local market at this date are as follows:—

Codfish, large, medium and small merchantable, qtl. $6.70 to $7.00.

Codfish, large, medium and small Madeira, qtl., $5.50 to $6.00.

Codfish, Labrador soft, qtl., $4.50.

Codfish, Labrador shore cured, qtl., $6.00 to $6.20.

Codfish, large and small West India, qtl., $3.00 to $3.50.

Haddock, qtl., $3.50.

Herring.

Herring of large size and in large quantities struck in at Long Harbor, Placentia Bay, during the second week of April, and good work was done by the fishermen up to the 22nd of the month, when came a change of wind which caused the herring to move out into deep water. Whilst the spurt lasted, fishermen netted about three barrels every day. These herring were of a very superior quality, full of milt and roe, and most of them 15 inches in length. Herring are very scarce in Fortune Bay; and bankers have been unable to get enough bait in this vicinity for bait. The only section of the coast on which herring are reported plentiful is Connoire Bay west of Cape LaHune.

Mr. John F. Murphy secured about 1,500 barrels of the Long Harbor run which he is putting up for the New York market, packed in regulation barrels. Mr. Murphy is purchasing agent and inspector for the Newfoundland-American Packing Company whose headquarters are at Bay Balls.

Herrings are quite slow in the market just at present. Split herring are quoted at $4.00 f.o.b.; Round Ordinary, $5.50; and Scotch pack, $10.00. We sent out large quantities of herring during the winter months, but, says the *Trade Review*, "not enough of rightly packed herring. We shall have to do better, or else lose our market in the United States. When the war is over, and our competitors get to work, we many not get a look in."

The *New York Fishing Gazette* says of our herring: "Newfoundland herring has slumped with the other pickled fish varities at a time when New York is largely stocked with fish. It depends upon conditions abroad now just how well this grade is going to stand the warm weather. If there are plentiful supplies from Europe, and the supply is within reach of the country, Newfoundland herring will probably be carried over in large quantities......It is certain that, despite all comment to the contrary, a quantitiy of Newfoundland goods is of as good a quality as considerable of that from overseas."

The *Gloucester Times* has a good word for us: "Packers of Newfoundland herring of Scotch cure are learning by experience that 'what is worth doing is worth doing well.' With this adage constantly in mind, there can be no question that the coming supplies of fish will meet the demand for discriminating herring eaters throughout the United States."

Large preparations are being made for this season's herring fishery, both west and north. The outfit at points on the West Coast will be larger than ever; and fishermen in Notre Dame Bay are also making ready for a large catch. It is hoped that recent enacted regulations will have the effect of securing a better pack. Otherwise—the deluge..

Not only shall we have to face competition in the American market from imported herring from Scotland, Ireland, Norway and Holland, but it looks as if we should have to reckon with the American home product. This is indicated by the following extract from the letter of a correspondent in a recent issue of the *Fishing Gazette*:—"Importers have come to recognize the advantage of handling well cured American herring as a substitute for the foreign varieties....It is is really remarkable to see how well some of these American herring, if they are well cured, are taking with the trade which formerly never dreamed of handling them. The scarcity of foreign herrings this season will certainly mean quite an advantage to the American herring in the future, because, even if foreign herring will again be plentiful in this market, some of the trade will continue to handle the American product." Herein is an ominous sound for our local trade.

Oils.

There is practically a clean market as regards Cod Oil. Some large shipments went out during the last few weeks and we understand that there is little now procurable. The stocks on the Western Shore—the produce of the winter fishery will not come to the St. John's market, as we are informed that buyers from American houses have gobbled it up. The price paid for a quantity recently shipped was $160 per ton. It is not likely that we shall see any great slump in oil prices, as the Norwegian output has been sold, and will not come to this side of the Atlantic. Those who held any quantity of cod oil must have done well in the foreign market.

Seal oil is now beginning to move. The S. S. Neptune and the S. Blandford have taken cargoes to new York, where the demand is brisk. The firm of Job Bros. are handling all this oil, as they have a branch of their business there, with a most capable manager, the Hon. W. C. Job who formerly had charge of the St. John's end of their business. The Cod-liver oil business will be more largely engaged in during the fishing season than for many years past. Some fifteen years ago we had a boom in this direction; and many of our outport dealers went into the refining business rather extensively. For a while large profits were made; but when fishermen began to understand the game, they demanded, and got, larger prices for liver. This reduced the refiners' profits. The Norwegians were at the time having short supplies of refined oil; but when their output got back to normal, they became formidable competitors, and the result was that most of our small refiners went out of business. The fact is, so a well-informed exporter informs us, we were not "delivering the goods" so satisfactorily as our Norse competitors. We lacked the essential factors to make our product a first-class commodity, with the inevitable result.

As far as we know the only refiner who has ever kept up a successful competition with Norwegian manufacturers is Mr. Munn, who operates an up-to-date plant at Harbor Grace. He has invaded several markets, and has always met with success. The Munn products are recognized as among the highest grade medicinal oils on the market.

The regulations to which we made reference in a former paragraph should have the effect of improving our product. Cod-liver oil is likely to touch $3 per gallon.

The Tonnage Problem.

In common with others we are being truly pinched by high freight rates; and every community is affected. It was feared some time ago that we should have to face a salt famine; but this problem has been solved. There will be a shortage possibly of carriers for Labrador fish; but efforts are being made to remedy this phase of the tonnage problem. The wooden sealers are being fitted up for the foreign trade; and larger ships will likely handle some of the Labrador product. The Neptune, and the S. Blandford have already sailed with oil products for the American market. The Bloodhound and others are engaged in the coal trade plying between Sydney and St. John's.

Since last writing there have been several additions to our local mercantile marine. The Messrs Steer Bros. have bought the tern schooner,"Florence D." to be used in their general trade. Messrs. Bishop and Monroe have purchased a large schooner for use in the transatlantic trade, with a capacity of between four and five thousand barrels. Mr. K. R. Prowse has also purchased a vessel in England for the foreign trade. Mr. Prowse is again launching out largely into the shipping world, as he has recently purchased the S. S. Kite one of the old wooden sealers. She is now being put in A1 condition, and it is said she is to be chartered for service in northern waters. Baine Johnson and Co., have purchased the large tern schooner "Lawson," a splendid vessel of 311 tons gross, built by Cochrane, of Port Grevelle, N. S The Lawson will be engaged in the Brazil trade and has a capacity of 5,500 drums. Recent arrivals—new purchases— are the "Lucania," from Boston, a splendid craft of 104 tons, for Job Brothers, and the "Hattie A. Heckman" to the Union Trading Company. The Lucania have been fitted with Bridgeport engines; and we understand that the Heckman will be equipped with a Bolinder.

Mr. Butler, shipwright, is now in New York looking over three vessels which will be purchased by Newfoundland merchants, and we are informed that several vessels will be purchased in addition to these. All the new purchases will be fitted with engines, so that our new mercantile marine will give more efficient service than the old fleet of "wind-jammers" which we formerly had.

The new Shipbuilding Act will have the effect of stimulating the building of vessels in the Colony. It provides a substantial bonus for construction according to class of twenty, sixteen, ten and eight dollars per ton on builders' measurement, respectively. The Union Company will begin work soon on their yards at Catalina, and we are informed that Mr. Lake, of Fortune, will lay down a couple of large vessels this summer. Mr. Lake has a well-equipped yard at Fortune. He has already turned some splendid specimens of marine architecture.

A Newfoundland Hero.

The Carnegie Hero Fund Commission has awarded Nathaniel Sheppard, of Tilting, a bronze medal and the sum of $500 for heroism in saving the lives of two brother fishermen, Nicholas and Thomas Keefe, on June 28, 1912. The report of the commission gives a detailed account of Sheppard's brave act; but, whilst we have read this with a good deal of interest, we would suggest to the Commission that such acts are by no means rare in our fishing annals. They occur almost every year; and we hope that such acts will not be allowed to go unrecognized in the future. Practically every Newfoundland fisherman is in the "hero" class; and we know that there are many unrecognized life-savers in our midst to-day.

Notes.

The schooner "Lina D. Young," Capt. Roberts, is having a hard time of it trying to get across the herring pond with a cargo of fish. She left port some ten days ago with 2400 quintals of fish for Alicante, and when 250 miles off Cape Spear she began leaking badly, and had to return. This is the third time that the vessel has had to return to port.

The S. S. Erik left here some days ago from Tilt Cove, Notre Dame Bay, where she will load copper ore for New York. Captain Cy. Taylor, formerly master of the "Bruce" goes in command.

The S. S. Terra Nova is now loading pit-props at Gambo for London. Capt. Nicholas Kennedy goes in command. We understand that her engineers and other members of the crew will receive exceptionally high wages and a war-bonus in addition. The Eagle will also load props for the English market. She will be under the command of Captain Couch.

The S. S. Cranley arrived at St. John's on Saturday from Cadiz with a cargo of 6,000 tons of salt. Since May 1 some 16,000 tons of this necessary commodity have reached here; and it is expected that by the end of June about 50,000 tons will have reached port.

Some days ago the fishermen on the North side of Bonavista Bay—from Musgrave to Cat Harbor—secured some 300 seals which had drifted in to the beaches. Some of them were old harps and hoops, but most of them were whitecoats. The greater portion had been "sculped" but some were "round." They were evidently lost from the pans of some of the sealing steamers.

Western merchants are now shipping salk bulk to France, where extraordinary prices for codfish are ruling. Messrs. Patten and Forsey, of Grand Bank are the pioneers in this venture, and we wish them abundant success. This is an entirely new departure in the fish trade, as it was thought that, owing to an almost exclusive tariff against our fish products, such a venture would not be a financial success. Mr. Patten is a most enterprising business man, as most of the Grand Bank merchants are. They are certainly progressive; and they are opening the eyes of us eastern folk as to the possibilities of the fish trade.

The President of the Fishermen's Union, who is also M. H. A. for the District of Twillingate, say some harsh things about the failure of the Government to provide cold storage plants for the fish business. He says that "This country has had three hundred years experience in the business, and if we have any brains at all, we ought to be able to make a success of it now. We must take the question entirely out of politics; we must make it a national issue, get our brainy men interested in it; and if we do that we shall find very shortly that the value of the fishing industry will be three times what it is to-day. One of the most serious problems facing us to-day is the shortage of bait, and yet we have heard nothing from the Government to indicate that they are taking this matter seriously, or that they intend to grapple with the problem. If we were to establish cold storage plants, so that the fishermen could get a supply in the fall, when they need it so badly, they could easily add 250,000 quintals to the catch which would mean an additional $1,500,000 in the pockets of the toilers."

When shall we begin to realize the importance of cold storage? Possibly when we shall have been outstripped in the race fora first place in the fishing industry by foreigners.

The Government has added $20,000 to the Old Age Pension Fund, which will bring 400 more worn-out old fishermen into the Fishermen's Pension Scheme. This makes the number of possible recipients 1,600. This pension, though small, is quite a boon to our old toilers of the sea who have spent the best of their lives battling with the storms and enduring the stress of the perilous avocation in which most of our people are engaged. The pension scheme was inaugurated by the present Government.

ST. JOHN'S, N. F.

(Special Correspondence)

During the Session of the Legislature which ended May 4th, there were brought forward and passed five Bills in relation to the fisheries. The Bills were entitled as follows:

(a) An Act for the Encouragement of Shipbuilding.

(b) An Act for the Protection of Persons Engaged in the Trawl Fishing.

(c) An Act to amend the Law Relating to the Herring Fishery.

(d) An Act Respecting the Seal Fishery.

(e) An Act Respecting the Refining of Cod Liver Oil.

The Bill for the encouragment of Ship Building is a very important measure. The building of vessels in this country in recent years has fallen away tremendously, so that scarcely a vessel has been built during the past three or four years, and a very large sum of money has been leaving here annually for the purchase of vessels of medium sizes from the neighboring Provinces. It is considered that it is a great misfortune that this is so, and that a very earnest attempt should be made to induce the people to engage in shipbuilding on perhaps a larger scale than heretofore, by establishing ship building yards. The provisions of the Bill are at first sight, perhaps, rather striking, and the encouragement which the Government has decided to give to those engaged in it, are very great, and if inducements offered in the Bill do not result in a considerable number of vessels being built hereafter in this country, then it certainly will not be for lack of sufficient encouragement. The bounties which are available at present are, according to the Bill being doubled, whereas the better class of vessels subject to the bounty heretofore have been passed by a surveyor, and entitled to a bounty of $8 per ton that will now be entitled to $16 a ton. In addition to that the material required, plank, spars and other material, will be admitted free of duty. Furthermore any persons or company establishing ship-building yards will upon the capital embarked in the enterprize up to the amount of $30,000.00 receive a guarantee from the Government of 7 per cent upon the capital invested for a term of fifteen years. The Bill seems rather drastic, and the amount of assistance guaranteed by the Government is rather extraordinary. First there is a guarantee of seven per cent on capital, then a bounty of nearly twenty on the vessel, and when it is considered that the cost of building in Nova Scotia is $70 to $73 per ton, and this bonus is nearly twenty dollars a ton, this means that twenty-five per cent of the total cost of the ship, then the dividend is guaranteed also. The legislation however, is for a specific purpose and a most imperative necessity, it is to meet the growing demand for tonnage for transport of the commodities absolutely essential to our colonial existance. This Spring no fewer than twenty schooners of sizes averaging about 100 tons were bought in Canada and the United States, representing an outlay of not less than $250,000. If it is found practicable to build such ships in this country not only will a large avenue of employment be opened to the people, but an expenditure of about a quarter million dollars annually in buying tonnage outside of the colony will go to our people.

A second important measure was the Bill relating to the Herring Fishery. The provisions of this Bill is for the appointment of a "Fishery Herring Board" of which the Minster of Marine and Fisheries shall be President. The Board consists of fifteen members. The powers, duties and functions of the Board are to make enquiries and researches upon all matters pertaining to the development of the Herring Fishery, and to diffuse such knowledge as will result in the most up-to-date methods of prosecution and pack of the Herring.

The Bill has been passed chiefly with a view to instructing the fishermen as to the requirements of packing herring in the Scotch method. Nearly every herring catcher around the coast will pack his catch this season in a manner as near as possible to that of the Scotch, and it is hoped that with the distribution of pamphlets lucidly written, together with the fullest co-operation of the fishermen will go a long way towards bridging the gulf that has separated Newfoundland cured herring from the Scotch packed.

The Bill passed respecting the Seal Fishery is the most important measure passed for years in relation to that industry. The Bill as passed will in future prohibit steamers of more than four hundred and fifty tons to prosecute the industry. This enactment will include all the big iron ships such as the Stephano, Dellaventure and Nascople, etc., thus next year the prosecution will be left to the old wooden steamers. Seemingly the bill is unprogressive in its aim, but the real effect that the Bill proposes to secure is a return to the wooden sailing vessels again. These vessels which are owend by the fishermen themselves, contrary to the steamers which are owned by a few merchants, could easily be fitted with high-powered motor engines which would enable them to move with comparative ease in the ice. All the profits that would accrue from the fishery would go to the fishermen, while in the present condition of the conduct of the fishery the cream of the profits goes to the steamer owners.

The Refining of Cod Oil Act.

This Bill unimportant in itself raised a most important discussion on the measurement of cod liver oil as sold by the fishermen to the merchant. Nearly all the oil thus sold is disposed of by the cask and measurement of the oil for selling is done by gauging it.

The Hon. Member for the district of Placentia, Mr. Walsh, made the statement that the fishermen were being wronged by this method of measurement, and that the fishermen of the country lost $50,000 last year by having to sell theirs in this way. He contended that measurement by gauge registers from two to three gallons of oil per cask less than the actual amount in the cask. The question was referred to the Inspector of Weights and Measures who confirmed this contention. As a result of this finding a Bill was immediately passed through the Legislature entitling the fishermen to two and one half gallons of oil per cask more than he has been accustomed to receive. The result of this legislation will be to save to the fishermen annually about $50,000.

The Seal Fishery Closes.

The Sealing voyage ended May 3rd when the last of the Gulf Fleet arrived at St. John's.

The returns from the Gulf are as follows:

Viking, Capt. W. Bartlett, Sr., number of seals, 10,000, owners, Bowring Bros.

Diana, Capt. D. Martin, number of seals, 8,000, owners, Jas. Baird, Ltd.

Ranger, Capt. W. Bartlett, Jr., number of seals 3,500, owners Bowring Bros.

Seal, Capt. Murley, number of seals, 3,200, owners Farquhar and Co.

The total of the seal fishery is 241,302 seals of which 227,234 were young Harps; 4,393 old harps; 4,581 old hoods; 1,373 Bedlamers, having a weight of 5,638 tons 2 qtls., 23 lbs., the net total value of which was $639,657.32.

The Winter Cod Fishery Ends.

The winter cod fishery is now over and the schooners are all in port refitting and making ready for the Bank fishery which will recommence in a few days. The voyage on the whole is reported to have been successful, though the returns of the actual catches have yet only come in from Burin District. These returns were as follows:—

Schooner	Qtls.
Ethel M. Bartlett	850
Donald G. Hollett	1,300
Gorden M. Hollett	900
Susan E. Inkpen	1,100
Marjorie N. Inkpen	900
Ella C. Hollett	900
Nita M. Conrad	800
Mirmiam May	400
Ada M. Bishop	500
Mina Swim	700
Linus A.	200
Vaness A.	800
Cavalier	200
Commander	200
Jessie M.	230
Behemia	330

The Cod Fishery.

A large number of schooners are now in St. John's getting supplies for the summer. Quite a number have already been supplied and have left for their homes prior to leaving for the Labrador and Straits fishery. The Marine Fisheries Department received a message May 8th from LaScie, a port on the north coast, that the first fishing schooner this spring arrived there, that day, on her way down the coast; this vessel was bound for the Straits. In a week or two the greater part of the fleet will be moving. We hear that owing to the large number of our young fishermen who are enlisting in the Navy and Army there is great difficulty being felt in securing sufficient men to crew all the schooners. High wages are being offered, yet it is feared that some schooners will be unable to prosecute the voyage owing to this scarcity.

On May 9th the Premier received a message from the Newfoundland representative at Portugal, Mr. Holmwood, informing him that the Portuguese authorithies had seized all Newfoundland fish in the country.

The action of Portugal is probably justified, and the seizure will not necessarily mean forfeiture. The action of Portuguese authorities is in all probability precautionary measure to prevent Portuguese dealers from reaping a harvest of commissions and excessive profits at the expense of the people of Portugal. It is a warning to Newfoundland that prices for fish have reached their maximum limit as far as Portugal is concerned, and that lower prices are not improbable. The stocks of of fish in Portuguese harbours last week amounted to 18,270 qtls.

The Market.

The foreign markets on both sides of the Atlantic are holding very firm, and this is especially true with regard to cod fish, shore cured. The stocks of Labrador fish now locally held are the smallest in a number of years. Present holdings are being rapidly reduced, and there is very little likelihood that this article will become a drug on the market, as was not unusual in past years.

There is at present on hand in the country not more than 50,000 quintals of Labrador fish, and within the next few weeks this balance will have been cleared out.

Prices for cod oil are still strong. Refined cod oil is now selling for $2.50 per gallon with every indication thatthe price will advance in the near future, as only the smallest quantities are being held by the local refiners. Common cod oil is not steady, but is fluctuating between $155 and $160 per tun, and as the fishery is now opening again it is unlikely that higher prices will prevail.

Herring just now has a very poor demand, and considerable quantities are held on hand. Split Herring are quoted at $4.00 per barrel f.o.b. for American ports. Round herring fetch $5.50, while Scotch packed herring in the American market are commanding from $9.00 to $12.00.

The following is the Market report at St. John's, May 11th.:

Large, Medium, and Small Merchantable	$6.60 to $7.00
Large, Medium, and Small Maderia	$5.50 to $6.00
Labrador Soft	$4.50
Labrador Shore cured	$5.80 to $6.20
Large and Small West India	$3.10 to $3.50
Haddock per quintal	$3.50
Split Herring (ordinary pack)	$3.80 to $4.00
Salmon No. 1, large, per trc	$16.00
Salmon No. 1, large, per trc	$12.00
Lobsters per case No. 1 (lb. tins)	$14.00
Cod Liver Oil per gallon	$2.55
Cod oil, per tun h. w. pkg.	$160.00
Cod oil, per tun s. w. pkg.	$145.00

Herring Fishery.

The spring herring fishery begins about 20th of May. Preparations are being made for its prosecution on a scale hitherto unprecedented. The high prices ruling in The American market for good cured fish is responsible for the increased activity. In the herring districts of Bonne Bay, and Bay of Islands, several new cooperages have been recently constructed, and though working at full speed the orders for herring barrels are pouring in faster than they can be filled. These barrels are all made the size of the Scotch barrel and half barrel. The barrels are made of hardwood (birch), and every possible effort is being made to have the pack as near as possible to the Scotch method. The number of motor boats engaged in the fishery will be double the number engaged last year, and every attempt is being made to develop the industry to the fullest. Amongst those who will pack in the country this year are some Scotchmen, one of whom is Mr. Flett a well known Scotch herring expert.

Cod Oil.

The high prices prevailed for refined oil has encouraged hundreds to go into the business. Some six or seven years ago similar high prices prevailed and scores of people engaged in the work, but with the decline in price the industry was abandoned. All the plants then used, with dozens of new plants, are being requisitioned, and it may be expected that a very large quantity of refined oil will be produced this year in the country.

The Cod Oil refining Bill passed in the recent session of the Legislature makes it necessary for every person engaging in the work to first obtain a license from the Dept. of Marine and Fisheries. All such oil being exported from the Colony must be first inspected and branded, and any defection of any refiner from this enactment is heavily finable.

From 1st of January to May 5th.:—

Codfish Qtls.	1915	1916
Portugal	10,680	18,584
Spain	27,858	59,170
Italy	15,261	7,187
British West Indies	19,996	28,858
Brazils	120,730	126,218
Dominion of Canada	5,085	1,688
England	4,262	21,952
United States	470	4,709
Other Parts	23,403	33,064
Seal Oil.		
United Kingdom	14	4
Other Parts	——	1,231
Cod Oil, tuns.		
United Kingdom	360	354
Other Parts	728	990
Seal Skins.		
United Kingdom	736	1,150
Other Parts	3,756	11,103
Salmon	860	160
Mackerel and Herring, Brls.	13,188	28,832
Cod liver oil, tuns	38	123
Lobsters, boxes	3,332	2,958

The following statement was posted at the Board of Trade during the week:—

Exports of Fish for April 1916:—

From Outports:—	Dry Fish	
To Europe		3,500 qtls.
	Salt Bulk Fish	
To United States		3,571 "

From St. John's:—	Dry Fish	
To Brazil		15,097 qtls.
To West Indies		10,776 "
To Europe		20,148 "
To United Kingdom		4,905 "
To United States		1,192 "
To Canada		1,657 "

Also

281 tons Cod oil.
9 tons Cod oil Stearine.
7,763 brls. herring.
100 brls of Turbot.
12,010 Seal Skins.
1,068 tons Seal oil.
9,960 gals. Cod Liver oil.
37 brls. of Trout.
640 cases of Lobsters.
1,500 lbs. of Squid.

Shipping.

Every other day a schooner or two is arriving in Newfoundland having been purchased by fishermen or business men, from Canada and United States. The prices being paid for these schooners are very steep. Your correspondent knows for an instance which happened during this week, where a schooner of 100 tons was offered for $12,000. A prospective buyer asked for a day or two to think over the matter, but when he returned with the intention of buying the vessels he was told that the price was now $13,500; needless to say the deal was not consummated.

Mr. Stephen Butler well known shipwright of St. John's left last week for New York, on behalf of some local merchants, to look over a number of vessels purchased by them there, and in this connection we hear that a regular fleet of sailing vessels will be bought in America to be used as fish and coal carriers for the Newfoundland trade. Most ofthe vessels which are under consideration are comparatively new, and some, it is understood, will be equipped with motors.

Salt Supply.

Since the middle of April no less than fifty thousand tons of salt have arrived at St. John's, and there is no possibility of a recurrence of the state of affairs which existed in the early part of last season's fishery, when cod were to be had in abundance all around the coast, but there was no salt to be obtained in the country. Job Bros. & Co. who are the largest importers of salt have already landed this spring in St. John's about 15,000 tons.

Owing to the high prices being paid for shipping and the steep insurance rates, it is not likely that the quantity in St. John's will materially affect the price, which is now ruling at $2.50 per hhd. This price is higher than ever before reached in St. John's.

American Fish Corporations.

The Newfoundland American Packing Company of which I spoke in my last month's correspondence to the "Fisherman", have begun to build their plant at Bay Bulls, and at the present time the piers are under construction. The summer will have advanced a good deal before the plant will be ready for active operation, and though it is intended that a beginning will be made this summer in packing all the different kinds of fish which the Co. intends handling, it is unlikely that the plant will operate at is full and enormous capacity until next season. The Company is financed by the Thomas Hubbard Company of New York, of which William Shillaber, and E. F. Searles are the most prominent figures—both of whom are multi-millionaires, while the firm of Hubbard and Co. are the financers and organizers of some of the largest railroad and banking institutions in the United States, so that—as is apparent from the scale on which operations will at first begin—there is no fear that the new firm will fall for want of finance.

The Gorton Pew Fish Company which established a large plant on the West coast two years ago, finds its business growing larger and larger in volume. This year it will engage very extensively in the herring trade, and we understand, that one day this week it gave an order to one of the local coopers for 13,000 herring barrels.

Newsy Briefs.

Gill net fishing which was introduced into the country for the first time, last season was found to be a decided success, and from dealers in Nets and Twines we learn that a very large number of gill nets are being sold for the coming fishery.

All the old wooden sealers are being refitted and made suitable to engage in freighting pit-props to England during the summer.

Since the Seal fishery ended the following messages was received by th Marine Fisheries Dept., from the Light Keeper at Cape John, on the north Coast "As far as can be seen with a spy glass the ice is covered with seals."

This week the premises belonging to the United Seal Manufacturing Co. Ltd., on the South side of St. John's, consisting of a frontage of 273 feet on the harbour, together with several buildings, as well as sealing gear, and punts etc. was sold at public auction. The highest bidder was Mr. K. R. Prowse. The property was knocked down for $10,000.

Up till May 6th the Norwegian cod fishery was 12,700,000 quintals short of the amount for the corresponding period of last year, this shortage will tend to stiffen prices for the Newfoundland product.

From the Dept. of the Marine Fisheries I learn that while the number of lobster packers applying for licenses to engage in the Lobster fishery last year were fewer than ever before, the number this year is even smaller; this no doubt is due to the low prices being paid for that article, since the war.

Dealers in Motor engines during the past two months enjoyed a very busy time, and altogether some hundreds of Motors were sold.

For successive days the Firm of Trask & Co., local agents for the Ferro Motor Engine sold as many as thirty machines a day. The Acadia motor had also large sales, while every agency did a good business.

The CANADIAN FISHERMAN is getting into the homes of the fishermen and before long will have a considerable circulation in the colony.

YARMOUTH

(Special Correspondence).

The lobster canners of this end of the province have certainly been struck a hard blow by the ruling of the French governement that the importation of canned lobsters into France be prohibited, canned lobsters being declared a luxury. A large part of the Yarmouth county pack went to France and the canners are in somewhat of a quandary. With the end of the season but a few weeks away the pack is almost complete and a large part of it was put up for the French warket. It is pretty late to find new markets but no doubt it can be done, although the packers will pass a few anxious hours before disposing of their wares.

The lobster catch for the past month ahs been good, several single shipments going over a thousand crates each. The price, however, has ruled low—$16 being the average. Some claim that the season all through has been exceptionally good — others that there has been a falling-off in the catch. On the whole the season has been better although in some localities the men have not done so well.

Mackerel which were expected on the coast a little earlier than usual this year, were later. It was the 19th before the first was taken and that catch consisted of but two fish caught in the trap of the Atlantic. Trap Company formerly known as the Snadford trap. This trap is now owned by a syndicate of Halifax men with John A . Neville, of Halifax, as manager. It is possible the fish have been on the coast before as the traps had been delayed in preparation by the high winds which have prevailed almost continuously and it was not until the 18th that the Sandford trap had got its twine on. It is not likely, though, as when the fish strike the Yarmouth county shore—invariably the first Nova Scotia land they make—they follow the shore right around towards Halifax, and we would have heard of them being taken down through the Islands and on the shores of Shelburne county. The phenomenal catches the southern seining fleet out of Gloucester have been having should be a good omen for our fishing. It is said that mackerel were never more plentiful on the American shores and it is not unlikely that the immense shoals will appear in these waters.

Line fishing is backward.
Last year many of the small boats were painter in February and off in March but this year only one or two of the fleet are in commission. Doubtless one reason is on account of the large number of enlistments from here. Take 1200 young men away from their ordinary work in a county of 21,000 or 22,000 population and some branches of industry are going to feel it. It has been found impossible to even man the few vessels we have, the Francis A. and several other vessels being tied up for want of crews. The few vessels that are fishing are now making good returns and there would seem to be some good openings for the right men.

One wharf owner told your correspondent the other day that a few more firms buying fish, thus making a little or more competition, would bring many more vessels and men here. Perhaps it would, and where there are so many good sites obtainable it is a wonder more have not gone into it. There are excellent wharves vacant—the best fitted for the business probably being the T wharf or the so-called Clements wharf belonging to L. E. Baker & Co.—or even the main wharf of that firm. Posibly the time will come when they will be occupied and we hope it will come soon. Of course things will boom when the war is over and our boys come home again, but, alas, that is very problematical.

A few new motor boats of considerable size and power have been added to the fleet by J. M. Walker. of the Gateway Fish Co., and G. R. Earl, of the Consumers' Fish Co.

Onthe 19th one young man, Lester Sanette, aged 17 years, of Pinchney's Point, was washed off his boat near Green Island and was drowned. That is the only casualty we have had in this county during the past few weeks.

A large number of the Maine lobster smacks—twenty-seven it is said—are coming over here to prosecute the lobster fishing (outside of the three-mile limit) as soon as the season closes. It is a pity these can not be regulated in some way.

FISH --- A FOOD AND A DELICACY

By Margaret McLaren.

During the Lenten Season, a larger quantity of fish is consumed than at any other time; chiefly because of religious considerations.

To the fisherman, who daily meets with risks unbelievable almost to the landsman, in the pursuit of his calling, this state of affairs seems to retard instead of promoting the industry of fishing.

It has been proposed to make Tuesday of each week, a National fish day.

This seems to be a rather good proposition for both the fisherman and the consumer, because it will benefit both in many ways as well as financially.

When the system has become weakened from over work or any other cause, all of the great specialists recommend a fish diet. Therefore technically speaking according to the aforesaid specialists "a fish diet is beneficial to the health of the human race. Doubtless this is because fish is so easily digested, when properly cooked.

Much of the work attending the preparation of a meat course is eliminated when fish is served instead. Thus, both time and fuel are saved. During year, the little economies amount to quite an item, thus favoring the serving of fish.

Many persons do not care for fish whether it is fresh or salt. This may be due to the fact that some of the delicious ways in which most sorts of fish can be prepared, are unknown to them. If a nice cook book, filled with reliable recipes could be had of the fish dealers, it would help in the sale of their commodity.

The waters of Canada abound with the best of all species, and these have been placed there for our benefit.

Arise then, people of Canada, and proclaim Tuesday as a National fish day. Seize the threefold opportunity of living cheaper, being more healthful, and helping the entrepid "Toilers of the sea."

The fisheries of Canada are indeed a most valuable asset. Let us help to make them more so, by using fish in our household as often as we can.

Hotels, Restaurants, etc., could have an electrical display, featuring Tuesday as our National fish day. Everybody's individual preference can be supplied, for the fishermen of Canada daily fare forth to win their bread upon the waters.

The National fish day will bring with its fish dinner, the tang of the ocean breeze, and the whisper of the little wavelets as they kiss the shore in their ebb and flow.

Canada's fishermen are hardy and industrious. Let us therefore help to make the fisheries a success.

THE PACIFIC FISHERIES

The tremendous increase in prices which has been brought about as a result of the war, is being severely felt by the fishing business on the Pacific Coast. The cost of food of all kinds has risen enormously, and in addition to this, there are very many articles required in the halibut and salmon fisheries which are fast becoming unobtainable. The halibut steamers and schooners are at present faced with a possibility of being unable to get any wire rope for anchor cable, and there is no relief to be had by using manila for the reason that the prices on manila rope of all kinds are prohibiitve. The advanced price of cotton is also having an adverse effect in increasing the price of fishing lines. The salmon fishermen are feeling the increased prices very severely. Those canneries which failed in the middle of 1915 to place their orders for 1916 requirements, are now finding it impossible to obtain salmon nets at any price. Even those who placed their orders nine months ahead were obliged to pay an increased price of about fifty per cent. Another important item with the salmon fishermen is bluestone for treating the nets. Before the war this sold for 5c per pound, and the price to-day is 24c per pound. Cutch, which is sometimes used as a substitute for bluestone, is now unobtainable at any price. While the industry on the Pacific Coast will manage to get along during 1916 with what supplies are in sight, the problem for 1917, provided the war continues, will be serious, as there is every possibility that there will be some absolutely essential articles which will be unobtainable, and in this way seriously handicap fishing.

What is a new venture for the Pacific Coast is being started by Mr. A. W. Thomas, of Ketchikan, Alaska, at Port Walter, on the west coast of Baranoff Island, Alaska. Mr. Thomas for a number of years has operated a large plant for catching herring to be used for bait by the halibut vessels, and also for salting purposes. It is his intention this year to sort out all the small herring which he catches, and can them as sardines. His cannery is already under construction, and he has engaged a number of women from Vancouver to handle the fish.

The schooner "W. R. Lord" has been taken out of the halibut fishing, and is now being used by her owners as a salmon pick-up boat.

During the past month a number of the American halibut fishing schooners have ben into Ketchikan for repairs. The schooners "Atlantic" and "Seymour" were overhauled by the Northern Machine Works, and the schooner "Thelma" had a new propeller fitted. The schooner "Prospector" was drydocked, and given a general overhaul preparatory to starting out for the season's fishing.

Capt. T. P. Quinn, formerly of the schooner "Idaho," is now Master of the New England Fish Company's schooner "Knickerbocker."

Mr. H. C. Walby, of The Canadian Fish and Cold Storage Company, Limited, has returned to Prince Rupert after a short absence.

The schooner "Iskum," Captain Mark Wells, sailed on her first trip of the season on April 22nd.

Captain Peter Rorvik, of Prince Rupert, has purchased an interest in the halibut fishing schooner "Prince Olaf," and has re-named her the "Rose Spit."

Mr. Harald Synnestvedt, resident manager of the New England Fish Company at Seattle, spent a few days at Vancouver.

Mr. John Wallace, of Butedale, B.C., was in Prince Rupert for a wey days.

Messrs. H. S. Ives and Bechtel, of the Victoria Fishing Company, passed through Prince Rupert on their way to Pacofi, to inspect the plant of the defunct Standard Fisheries, Limited.

The barge "W. H. Smith," which was converted into a floating cold storage and refrigerating plant by the National and Independent Fisheries Company, some years ago, has had all of her machinery removed, and will be re-converted into a sailing vessel, which was her original condition. The great lack of shipping and the enormous freights offering for sailing vessels is given as the reason for the change.

A power driven hurdy gurdy has been installed on the steamer "San Juan," and she will use the long line method of fishing, in addition to the ordinary dory fishing.

Mr. A. McCormack has arrived at Prince Rupert to take charge of the building operations of the new shed which the Booth Fisheries Company of Seattle are erecting on the Grand Trunk Dock.

Mr. F. E. Payson, of the Goletas Fish Company, has returned to Vancouver, having been absent on a visit to Prince Rupert for several days.

Mr. P. B. Gill, Secretary of the Deep Sea Fishermen's Union of the Pacific, was in Vancouver for a few days last month.

HALIBUT ARRIVALS AT PACIFIC COAST PORTS

At Prince Rupert, B.C.

Date.	Vessel.	Delivered to.	Weight.
May.			
1	Eagle, U.S.	The Canadian Fish & Cold Storage Co.	25,000
	G. Theckla, U.S.	The Canadian Fish & Cold Storage Co.	15,000
2	Murineag, U.S.	The Canadian Fish & Cold Storage Co.	10,000
	Alliance	The Canadian Fish & Cold Storage Co.	10,000
3	Elsie, U.S.	The Canadian Fish & Cold Storage Co.	15,000
	Aurora, U.S.	The Canadian Fish & Cold Storage Co.	8,000
	N. Sunde, U.S.	The Canadian Fish & Cold Storage Co.	27,000
	Thelma, U.S.	San Juan Fishing & Packing Company	25,000
	Teddy J., U.S.	San Juan Fishing & Packing Company	20,000
	Jas. Carruthers	The Canadian Fish & Cold Storage Co.	100,000
	Kincolith	The Canadian Fish & Cold Storage Co.	5,000
	Tuladi	The Canadian Fish & Cold Storage Co.	12,000
	Gilford	The Canadian Fish & Cold Storage Co.	9,000
	Minnie V.	Atlin Fisheries, Limited	5,000
.	Kong Sverre, U.S.	The Canadian Fish & Cold Storage Co.	15,000
	Selma, U.S.	The Canadian Fish & Cold Storage Co.	6,000
5	Atlantic, U.S.	Atlin Fisheries, Limited	32,000
	Annie St. Leon	The Canadian Fish & Cold Storage Co.	7,000
6	Director, U.S.	The Canadian Fish & Cold Storage Co.	8,000
	Dick, U.S.	The Canadian Fish & Cold Storage Co.	14,000
	Liefe E., U.S.	The Canadian Fish & Cold Storage Co.	11,000
	Chief Zibassa	The Canadian Fish & Cold Storage Co.	25,000
	Agnes, U.S.	Atlin Fisheries, Limited	11,000
	Seymour, U.S.	The Canadian Fish & Cold Storage Co.	70,000
7	Lincoln, U.S.	The Canadian Fish & Cold Storage Co.	7,000
9	W. R. Lord	The Canadian Fish & Cold Storage Co.	25,000
	Nellie, U.S.	San Juan Fishing & Packing Co.	10,000
	Augusta, U.S.	San Juan Fishing & Packing Co.	15,000
	Evolution, U.S.	The Canadian Fish & Cold Storage Co.	22,000
10	Nellie, U.S.	San Juan Fishing & Packing Co.	10,000
	Jim Ham, U.S.	The Canadian Fish & Cold Storage Co.	10,000
	Hy. Gill, U.S.	The Canadian Fish & Cold Storage Co.	12,000
11	Alameda, U.S.	The Canadian Fish & Cold Storage Co.	15,000
	Viking, U.S.	The Canadian Fish & Cold Storage Co.	12,000
	Merrymaid	The Canadian Fish & Cold Storage Co.	7,000
	Geo. E. Foster	The Canadian Fish & Cold Storage Co.	90,000
13	Jessie	San Juan Fishing & Packing Co.	15,000
	Grier Starrett	The Canadian Fish & Cold Storage Co.	30,000
14	Rose Spit	The Canadian Fish & Cold Storage Co.	7,000
	Chief Skugaid	The Canadian Fish & Cold Storage Co.	40,000
	Cora, U.S.	San Juan Fishing & Packing Co.	7,000

Note: All vessels no specified "U.S." are of Canadian Register.

AT VANCOUVER, B.C.

May.			
1	Orion	The Canadian Fishing Company, Limited	20,000
	Pescawha	The Canadian Fishing Company, Limited	25,000
2	Carlotta G. Cox	The Canadian Fishing Company, Limited	40,000
3	Emma H.	The Canadian Fishing Company, Limited	40,000
5	Celestial Empire	The Canadian Fishing Company, Limited	60,000
6	Iskum	The Canadian Fishing Company, Limited	25,000
11	Kingsway	The Canadian Fishing Co., Limited	60,000
	Flamingo	The Canadian Fishing Company, Limited	60,000
15	Manhattan	New England Fish Co.	160,000

AT STEVESTON, B.C.

May.			
5	Roman	The Columbia Cold Storage Co.	50,000
15	B. C. P.	The Columbia Cold Storage Co.	10,000

AT KETCHIKAN, ALASKA.

May.			
1	Mabel C.	New England Fish Company	9,000
	Lumen	New England Fish Company	15,000
	Volunteer	New England Fish Company	15,000
	Raven	New England Fish Company	8,000
6	Prospector	New England Fish Company	65,000
8	Bravo	New England Fish Company	8,000
	Morengen	New England Fish Company	20,000
9	Martha	New England Fish Company	5,000
	Stranger	New England Fish Company	10,000
	Anita Phillips	New England Fish Co.	20,000

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LIMITED
Receivers and Distributors
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Dry and Pickled Fish,
Lobsters, Cod Oil, etc.
FARQUHAR'S WHARF
HALIFAX, Nova Scotia.

Production and Thrift

CANADA'S CALL
FOR SERVICE AT HOME

Produce More and Save More The Empire needs food. If you are not in the fighting line you may be in the producing line. Labour is limited—all the more reason to do more than ever before. Grow food for the men who are fighting for you. The Allies need all the food that you can produce. Every little helps. You are responsible for your own work. If you cannot produce as much as you would like, produce all you can. Work with the right spirit. Put fighting energy into your effort and produce now when it counts. The more you produce the more you can save. Producing and saving are war-service.

Make Your Labour Efficient In war-time do not waste time and energy on unimportant and unprofitable work. Economize labour. Put off unproductive work till after the war, and, if possible, help in producing something needed now. Let us not waste labour. Canada needs it all. If possible help to feed the Allies. Make your backyard a productive garden. Cultivate it with a will. Make your labour count for as much as possible.

Do Not Waste Materials There should be no waste in war-time. Canada could pay the annual interest on her war expenditure out of what we waste on our farms, in our factories, in our homes. Every pound of food saved from waste is as good as a pound of increased production. The way for a nation to save is for every individual to save. France is strong to-day because of thrift in time of peace. The men and women of Great Britain are not only "doing" but are learning to "do without."

Spend Your Money Wisely Practise economy in the home by eliminating luxuries. Wasting our dollars here weakens our strength at the Front. Your savings will help Canada to finance the war. Save your money for the next Dominion War issue. There can be no better investment.

THE GOVERNMENT OF CANADA 5

THE DEPARTMENT OF AGRICULTURE THE DEPARTMENT OF FINANCE

CANADIAN FISH FOR CANADIAN SOLDIERS IN ENGLAND.

The London Express says:

Twenty-one thousand happy-faced aCnadian soldiers tasted their first fish ration today, and pronounced it good.

The fish consisted of halibut and soles. They came in a frozen state two thousand miles across Canada before they were shipped to England.

There were slabs of halibut as large as door. Slices of this and the soles were cooked in flour and pure fat, and after twenty minutes' cooking won the approbation of the colonel of the regiment, who tasted the new diet. The verdict of the men is that three-quarters of a pound of fish is more satisfying than three-quarters of a pound of beef, and that it contains more nourishment.

It is intended to give the men fish every Friday, and possibly one other day a week, as a substitute for beef and bacon, but, as one Canadian soldier expressed himself today, "there will be an instant appeal for three Fridays a week." There is no doubt that the fish ration is a great success, and it may be introduced at an early date among Canadian troops in France.

PROMPT SALES *PROMPT RETURNS*

P. C. PARKHURST

Commission Dealer in

Salt AND Pickled **FISH** Smoked AND Canned

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WHOLESALE PRODUCER OF SMOKED FISH
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BROOKLYN - - - N. Y.:

BUYS CISCOES: CHUBS-TULIBEES; BLUE FINS; white STURGEON; frozen as well as salted round HERRINGS. Red and fat, Pacific Coast mild cured SALMON.

I pay market prices for all varieties of prime, fresh or frozen fish, suitable for smoking. Remittances upon safe and satisfactory arrival. Authentic reference. Communicate with me.

W. Irving Atwood, Prest. **N. D. Freeman, Treas.**

W. Elmer Atwood, Vice-Prest.

Irving M. Atwood, Sec'y and Mgr.

WACHUSETT BRAND FINNAN HADDIE

ALL VARIETIES OF THE SEASON

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Wholesale and Commission Dealers in
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PRICE LISTS; TRADE BULLETINS,
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(PUBLISHERS OF THE CANADIAN FISHERMAN)

Official Organ of the Canadian Fisheries Association

CANADIAN · FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, JULY, 1916 No. 7

Fish Tugs at a Great Lakes Fishing Port.

Drying Gill Nets

*Look for the
Mark of
Quality*

*It can be seen
on all
High-Grade
Atlantic Sea
Foods*

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LIMITED

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PRODUCERS OF ALL KINDS
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FOR HOME & EXPORT TRADE

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Maritime Fish Corporation
LIMITED

ONTARIO

Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted—October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)

(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries

Of the Province of Quebec

DEPARTMENT OF THE NAVAL SERVICE

FISHERIES BRANCH

Lobster Fishery Fishing Seasons in Force on June 1st, 1916

Number of District	Limits	Fishing Season	Size
1	Charlotte County, N.B.	Nov. 15 to June 15	10½ inches
2	St. John County, N.B.	Nov. 15 to June 1st	9 inches
3	Albert County and Portion of Cumberland County, N.B., and King's and Annapolis Counties, N.S.	Jan. 15 to June 29	No Size Limit
4	Digby County	Jan. 6 to June 15	No Size Limit
5	Yarmouth, Shelbourne, Queen's, Lunenburg, and that portion of Halifax county west of a line running S.S.E. from St. George's Island, Halifax Harbour, and Coinciding with Fairway buoys	Dec. 15 to May 30	No Size Limit
6	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including Chedabucto and St. Peters Bays and the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite	April 1 to June 20	No Size Limit
7	Remaining portion of Cape Breton Island, including St. Paul's Island, not covered by District No. 5	April 15 to July 15	No Size Limit
8	The Magdalen Islands, including Bird Rocks and Bryon Island	May 1 to July 20	No Size Limit
9	Waters of Northumberland Strait, between a line on the N.W. drawn from Chockfish River, N.B., to West Point., P.E.I., and a line on the S.E. drawn from the west side of River Philip channel at the mouth of the river, Nova Scotia, to the eastern entrance to Victoria Harbour, Queens County, Prince Edward Island	May 25 to Aug. 10	No Size Limit
10	On and along the portion of the coast or the waters thereof, of the Provinces of Nova Scotia, New Brunswick and Prince Edward Island, westwardly and northwardly, from the Lighthouse in Antigonish County, opposite Flat Point in Inverness County, Nova Scotia, to the northern boundary New Brunswick, including the coasts and waters thereof of all the islands adjacent to these portions of the coasts of the said Provinces as well as the coast and waters thereof of the Counties of Quebec south of River St. Lawrence, except those specified in No. 8	April 26 to June 25	No Size Limit
11	North of the Gulf and River St. Lawrence including Anticosti Island	May 20 to July 31	No Size Limit

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of the Naval Service is required.

Cases of canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED
TO THE COMMERCIAL FISHERIES
OF CANADA AND NEWFOUNDLAND
THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE
- - OF FISH PRODUCTS - -

F. WILLIAM WALLACE
EDITOR

The Industrial & Educational Press, Limited
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Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, JULY, 1916 No. 7

July Fish Day Calendar

1916			JULY			1916
Sun.	Mon.	Tues.	Wed.	Thurs	Fri.	Sat.
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SOMETHING ABOUT THE CANADIAN FISHERIES ASSOCIATION.

We call your attention to President Byrne's letter in this issue, and at the same time we would ask you who are not members to seriously consider the matter.

A common argument against joining the Association, or any Association for that matter, is, "What good is it going to do me or my business? Is there any money in it?"

The Canadian Fisheries Association is not a financial institution for its members to draw monetary dividends out of, nor is it purely a social society for the purpose of holding Annual Banquets and having a good time. Its purpose is to look after the interests of those who are commercially engaged in exploiting the fisheries of the Dominion of Canada, and since its inauguration its officials have not had to seek their work—it has been thrust upon them.

A number of the members have been directly and indirectly benefitted by the Association's activities already, and they realize fully its usefulness. Others may not have received any direct benefits from their membership, but they know that the industry as a whole is being looked after, and what benefits it, is good for them. Every member knows that when anything occurs which is going to hurt his business, he can call upon the Association to help him, and that fact is worth a great deal.

If you are a small dealer, is it not worth something to you to know that by subscribing to the Association you are supporting Committees in close touch with the Government, who are consulted upon matters of importance in connection with the fisheries? You are also supporting a Publicity Committee which is gradually moulding public opinion through the press and otherwise to the advantages of fish as a food, and which will benefit everybody in the industry. You are also supporting a Transportation Committee which is watching the railways and express companies and fighting for better service and lower tariffs.

The large concerns have already enrolled themselves and their great influence is thrown into the Association for the benefit of all who become members.

Is that a fact which any fisherman or fish man can afford to overlook?

If you are a fisherman, the sum of one dollar will make you a member. Your dollar will help to aid the progress of the industry you make your living by. It will help by reducing transportation expenses and ultimately result in better prices being paid for your fares. It gives you a voice in the affairs of the Association and a vote in the election of intelligent officers. Is that not worth a dollar to you?

If you are engaged in the fisheries of Canada either as a wholesaler, retailer, fisherman, fish worker, or clerk, you should take an interest in the industry outside of your actual work. Help to develop it and you will help to develop yourself. Make a big thing of it and you will reap the benefit.

You may not hear a great deal about the Association and its work. We are in a small way yet, but we are destined to become powerful, and a factor for good. Do you suppose for one moment that the influential men who form the officers and directors of the Association would have anything to do with it if they did not realize its value? They are giving their valuable time and efforts, not for themselves, but for the whole industry. Men who are strong competitors in business are working harmoniously together for the common good and sinking all thought of self.

As an ordinary member, fisherman, producer, wholesaler or retailer, you are linking up with an Association which will look after your interests, and some time, it will be called upon to benefit you directly. You may be a member for years and have no occasion to call upon it, but your subscription is not lying idle, nor is it being ill spent. The Publicity work is benefitting every single person engaged in the fishing industry of Canada.

The time is coming when you cannot afford to remain out of the Association. The fees are very low and are designed to admit all classes upon the same footing.

Our membership is in the hundreds now. We want to make it in the thousands. Think over what we have written and join in and help along the good work. We want to make the fishing industry of Canada the best in the world. Every reader of this magazine is eligible for membership. Join now!

THE NEXT NATIONAL FISH DAY.

"A FISH DAY EVERY DAY!" is the ultimate object of the Publicity Committee of the Canadian Fisheries Association, but a beginning has to be made in the direction of separating fish from Friday.

Tuesday comes at the slack end of the week, and the Association figures that if the dealers were to feature fish on that day as well as on Friday, it would stimulate a demand which would gradually spread out over the week and become a daily feature.

At the present time most of the butchers and retail fish markets have a fresh stock of fish in on Thursday. The sales are active on Thursday afternoon and Friday until about 3 p.m. Any stock left over can be sold on Saturday. This means that there are three days in the week when fish are in stock in most dealers' stores—Thursday, Friday and Saturday.

With fish as a special feature on Tuesday, fresh stock would be in the stores on Monday afternoon, and a sufficient supply would take care of sales on Tuesday and Wednesday. This arrangement would fill up most of the week and avoid having stock left over Sunday.

The big task is to educate the public, but the dealer can do a great deal in this direction himself by dressing up his windows on Monday afternoon; by placarding fish specials and by advertising the fact that he carries a fresh stock of fish for Tuesday's consumption. Advertising in the local papers helps greatly, but one of the best ways is to tell customers that he is making a specialty of fresh fish every Tuesday, and that it is not necessary for them to wait for Friday to procure A.1. stock.

A great argument is the increased price of meats. "Economize by eating fish instead of meat," is a good slogan, and if one has a few logical arguments in proof of the fact, the customer will buy, and if the fish is in good condition, will buy again. The average housewife prides herself on her "economy" and the word has an alluring sound.

Second in importance—some insist that it is of the greatest—is the proper cooking of fish. The dealer can do splendid educational work in this line if he will distribute the Government's cook book to his customers. A badly cooked piece of fish will kill future sales more than anything, and there is a whole lot of truth in the adage that "God sends food, but the Devil sends cooks." Supplies of this handsome cookbook can be had from the Department of Marine & Fisheries, Ottawa, upon request.

The next National Fish Day will fall upon a Tuesday in September—the precise date will be announced later. In the meantime, the Publicity Committee of the Association will devote considerable time to formulating plans for making the day as great a success as the last Fish Day, and will also work up schemes for inaugurating every Tuesday a fish day thereafter.

In this issue we are publishing a short article by Mr. J. A. Paulhus, Chairman of the Publicity Committee, and this will be the forerunner of others upon the same subject.

TRANSPORTATION AND THE FISH TRADE.

Following up the recommendations of the Jameson Commission—published in our last issue—the Department of Marine and Fisheries called railway and express company officials to a conference in Montreal for the purpose of discussing the recommendations of the Commission. The President, Secretary and the Transportation Committee of the Canadian Fisheries Association were also invited to the session, which was held on June 12th.

The Traffic Manager of the Intercolonial Railway, Mr. C. A. Hayes, consented to the reduction of the minimum freight carload quantity on fresh fish from 24,000 pounds to 20,000 pounds, and from 30,000 to 24,000 pounds on cured fish. This will go into effect immediately.

With regard to the other recommendations, the conference brought no satisfactory results. The express company officials evaded the points brought up by laying the responsibility on the railroad companies. They claimed that the railroads furnished them with the equipment and they merely operated it. Any change in service or in cars would have to be taken up with the officials of the railway companies.

However, they stated that at the next meeting of their Traffic Association, they would carefully consider the questions brought up and take the matter up with the railroads they operated over.

The Canadian Fisheries Association complained bitterly of the transportion service accorded to carloads of fish over the Intercolonial—the delays during the last winter over the "People's Railway" being most exasperating and causing severe losses in business. To the recommendation that an express refrigerator car be attached to the I. C. R. passenger trains the traffic manager replied that it could not be done as the engines were hauling the maximum load. He also stated that it would not pay to split the train in two sections to acommodate the fish men.

Throughout the conference, the Canadian Fisheries Association's representatives felt that the transportation companies were unwilling to concede anything or to make any effort to cater to the requirements of the fish trade. However, the sentiments and opinions of the Conference were fully noted by the Government's representative, Mr. W. A. Found, Superintendent of Fisheries, and the matter will be taken up again in the near future. The transportation Committee of the C. F. A. will keep in touch with the Government and report to its members.

OVERLOADING THE DORY.

Our Lunenburg correspondent mentions the drowning of two fishermen by the capsizing of their dory through overloading. This is all the more regrettable because it is easily avoidable, and there is absolutely no necessity for it.

A large number of the drowning accidents among sea fishermen are caused by overloading, and most of the narrow escapes are caused from it. Fishermen are man, and like meet people, hate to let anything get past them. When fish are striking good they'll load up on all that's coming. Sometimes they get aboard or ashore all right, but sometimes they don't, but once a man has been capsized through overloading, he is mighty careful it doesn't happen again.

The writer has experienced something of this. I have been out in a dory night fishing in the month of December off the Lurcher when we pitched out over eight hundred fish by count. The dory was so deep and so logy that it was within an ace of swamping —the sea spilling in over the gunnels amidships. It was a bitter cold night and black dark, but luckily there was no sea. We got alongside the schooner all right, but I thought at the time that it was foolhardy and not worth the risk .

On other occasions I have seen halibuters up-end their oars for lightening only when the dory could hold no more fish; dories coming alongside with fish towing over the stern, and other times I have seen the dory-mates engaged desperately pitching out fish in order to avoid sinking.

A dory is a mighty able craft. It will carry a heavy load and ride out a heavy sea, but heavily loaded with fish, it is absolutely dangerous. There is no lift to it; it is hard to handle, and should a sea slop into it, the whole craft is liable to founder. Why should a man throw away his life for a few pounds of fish?

It would be hard to frame laws against overloading, and if there were any, it would be hard to enforce them. The only way would be to have the skippers caution their men against the practice and make a rule that when the pens are full to the rising strips in ordinary fishing weather that the dories lighten up.

Overloading occurs not only on the Banks when fishing, but also when carrying herring bait, ice, and supplies in harbours. The skippers should be invested with more authority and compelled to stop the practice among the crews. Enquiries should be held into drowning accidents, and the masters held responsible for deaths which occur through lack of warning. A notice posted up in forecastles and cabins would help greatly, and with the supervision of the skipper, the regrettable drowning accidents and narrow escapes which occur every year would gradually vanish, as the railway and street car mishaps have since the "Safety First" campaign was organized.

MOTOR FISH CARRIERS FOR CANADIAN AND NEWFOUNDLAND TRADES.

Referring to our Editorial in the last issue on this subject, we are able to print further information in the following from The Motor Ship and Motor Boat, published in Great Britain.

"One of the most interesting enterprises now in hand is that of which a short announcement was given in this journal a few weeks back. The main idea is for the transport of fresh fish from the more distant fishing grounds surrounding Newfoundland, the coast of Labrador, and south and south-east Greenland, to this country.

There are many reasons why a steam-engined vessel would not be able to effect the same purpose, and it is essential that the craft should be speedy, in order to reach a home port within a few days (not more than three or four) from leaving the fishing ground, otherwise the value of the fish deteriorates very rapidly.

The promoter of this business is Captain James Campbell, of 2, West Street, Finsbury Circus, London, E.C., who has had long sea-going experience, and knows the district concerned very intimately. It has been decided to build vessels of 150 ft., and the first craft is already under construction at the yard of Messrs. J. and G. Forbes, of Sandhaven, the design having been carried out by Mr. J. A. McCallum. The first boat will be of composite construction, chiefly in order that it may be built more quickly, but later craft will no doubt be wholly built of steel.

The new vessel will have a beam of 25 ft., the depth of the hold being 14 ft. Chief interest centres in the machinery installed, and this will consist of two 350 b.h.p. Polar-Diesel engines of the ordinary type, of which many years experience both on sea and land have already been gained. These motors are of the relatively slow-speed type with two manoeuvring cylinders, the particular advantage of these being ready manoeuvring powers and the fact that no cold starting air is admitted into the working cylinder. It will also be remembered that these motors are provided wtih scavenging ports, and do not adopt the principle of scavenging valves.

It is anticipated that a speed of between 13 and 13 1-2 knots will be attained in smooth water, and probably in the later vessels an even higher-powered machinery installation will be made, so that greater speed will be attained.

It will be seen that the problem in deciding upon the type of vessel to adopt for this peculiar business was complicated by the fact that the distances were long, necessitating a very large bunker capacity. The question of bunker capacity meant either that slower speed would have to be employed if steam engines were used, or else a sacrifice of the carrying capacity for fish. It is found that with the boat in question 250 to 300 tons of iced fish will be carried, in spite of the fact that sufficient oil for all purposes, will be provided. With a steam-engined vessel of the same size, such an arrangement would have been practically impossible.

It is stated that all manner of fish are in abundance in the waters which will be fished, these including salmon, salmon trout, halibut, plaice, etc. Overtures have already been made tentatively to local fishermen to supply these carriers with fish from their own catches, but in any case it is proposed to construct a fleet of smaller motor fishing vessels to act as feeders.

It is worth noting that great interest is being shown in the business by the Newfoundland Government, who sees its possibilities, whilst naturally the Board of Agriculture and Fisheries in this country would be glad to see the vessels in commission, owing to the shortage of fish.

PISCATORIAL PARAGRAPHS.

Mr. W. R. Spooner, Wholesale Fish Merchant, has removed into finer and more central premises at 119 Youville Square, Montreal.

The fish shipments from Canada to Great Britain for the supplying of the Canadian troops still continue. Large quantities are going over in cold storage weekly.

The disastrous fire which wiped out the Canadian Fishing Company's plant at Vancouver, B.C., was started by an irresponsible youth merely for the effect of seeing the fire engines race to the blaze. His insane prank caused a loss of $650,000, but we are glad to note that the indefatigable manager of the fishing concern, Mr. A. L. Hagar, got things started again, and is now doing "business as usual," though under difficulties. The Company will rebuild and establish finer premises than before.

The American mackerel seining fleet have made big stocks lately. A high liner was the Constellation, Capt. Chas. McGuire, which stocked $5,533—the crew sharing $114 each. The Benjamin A. Smith, Captain Martin Welch, stockeh $5,776—the crew sharing $112. The fares were caught on the Cape Shore. The biggest halibut stock of recent years was made by Captain Carl Olsen, in the schooner Elk. The stock was $7,300, and the crew shared $218 clear.

TRADE INQUIRIES.

A Montreal wholesaler wishes to get in touch with producers of green codfish located on the Gaspe and Gulf of St. Lawrence coast. Open to purchase large quantities. Address CODFISH, 600 Read Building, Montreal.

The S.S. Sagona left St. John's June 12th, for the Labrador coast, she is the first steamer to go to Labrador this season from St. John's, and will maintain during the summer a passenger service between the Labrador and Newfoundland coasts for the convenience of fishermen.

An Open Letter to All Who Are Connected with the Fishing Industry in Canada

The CANADIAN FISHERIES' ASSOCIATION, since its organization, some fifteen months ago, has accomplished much for the benefit of the Fishing Industry as a national asset by improving the conditions under which it is carried on.

Ours is essentially an "Association with a mission," and our objects, as set forth in the Constitution and by-laws, are in the broadest possible sense to make fish a regular article of food for the Canadian public, by improving methods of production, transportation and handling the product of our oceans, lakes and rivers from the producer to consumer, to assist in opening up foreign markets for Canadian Fish, and to prevent the enaction of unfair or unwise legislation which may unjustly affect those engaged in the industry.

We count among our members many of the large producing and distributing companies, as well as a large number of fishermen and small shippers. The scale of fees is arranged to cover all whose interests are in any way affiliated with the industry and are moderate permitting all who wish to join our ranks.

While the membership is steadily increasing and this fact alone shows the interest taken in our work, it is now intended to make a special appeal to fishermen, shippers, jobbers and retailers to join the association, thereby identifying themselves with the good work which is being carried on and also to assist us in making known the extent of our Canadian Fisheries, which are the largest and most prolific in the world.

This appeal is directed to Canadians who should become members of The Canadian Fisheries Association, no matter in what section they may be stationed, because we can help them if we can secure their cooperation. Do it now!

D. J. Byrne.

President Canadian Fisheries' Association.
Montreal, June 25, 1916.

The Coming National Fish Day

By J. A. PAULHUS
Chairman, Publicity Committee, C.F.A.

Our first National Fish Day has been a revelation. It has proved a success beyond expectation. It is evident that the people of this country have realized the importance of the fish industry and the material benefits attached to it.

For two reasons the exploitation of this best resource of Canada should appeal to Canadians.

1st. The development of the fish industry is bound to increase the wealth of the Dominion.

2nd. Fish, as an article of food, is second to none, and needs only to be better known to be appreciated.

It has been the constant endeavor of the Publicity Committee of the Canadian Fisheries' Association since its inception to popularize knowledge of fish as a food, to disseminate through all the channels possible the advantages, and the benefits that will necessarily accrue to individuals and to the country at large through a propaganda for the development of our fish industry.

At this particular time when the economic situation all over the British Empire needs readjustment, when the question of providing food for the Army and Navy for civilians engaged in the pursuit of warfare is becoming a problem and a serious one, it is an imperative duty for us to relieve the situation as best we can, and to spare no efforts in that direction.

We are large producers in this country of butter, cheese, wheat, fruit, and meats to a certain extent. By exporting more of these products and using more fish at home we should serve a double patriotic consideration. One might say, "Why not export fish as well." We are already doing that in a certain measure.

In the last issue of Canadian Fisherman, reference is made to what has been done lately in this matter. It is, without doubt, a promising adventure. But we know of the serious drawbacks that are inherent to the exportation of fish. It is very perishable and we are not altogether properly equipped to venture on this speculation on a large scale.

Let us begin at home first. Our other products that I have previously mentioned are well-known and in favor in all the British markets. They command specially high prices and are therefore a very appreciable source of income. So let us export as much as we can of them and increase this exportation by using fish a sthe general foodstuff of the country.

To attain this object, that is, to increase the general use of fish as food in Canada, the Publicity Committee of the C. F. A. has decided to start on a new campaign of education and advertisement.

Another National Fish Day upon the same lines as the first one has been decided on, and at the same time the inauguration of an additional fish day, weekly, Tuesday, has been chosen a sthe most suitable day.

We invite the co-operation of everyone interested in the Fish business, producers, exporters, distributors, grocers, butchers, provision dealers in any shape or form. We urge them to come to our assistance in this patriotic enterprise. We also appeal to the public and ask them to accept a second National Fish Day with as much fervor as they patronized our first Fish Day, last February. The press of the country without exception, has been of invaluable service to us in the past, and we rely again upon its help to promote the fish interests in the future.

For all, our motto from now on should be—"East more fish."

Technical Training for Fishermen

Opinions Expressed on the Subject by Authorities in Nova Scotia.

It is readily admitted on all sides that technical education is becoming more and more a live question in practically all trades and industries. The view is held in some quarters that its adoption in the fish trade, particularly the cured fish trade would revolutionize that important Canadian industry. The **Canadian Fisherman** has approached some of the leaders in the fishing industry of Nova Scotia for their views on the advantages, if any, that would in their opinion accrue to the industry from technical training of the workers. These opinions are subjoined and are prefaced by a general statement made by Mr. Frederic H. Sexton, the Director of Technical Education for Nova Scotia. Mr. Sexton accompanied the Canadian Royal Commission to Europe on its tour of investigation into industrial training in 1911 and he was given every opportunity to make a special study of the systems in the various European fishing and navigation schools.

"There is no occupation or calling which cannot be assisted and developed to the benefit of the worker", said Mr. Sexton, "and this is especially true of the fishing industry, which calls for the exercise of so much hardihood and intelligence. The fishermen all over the world have not received the same advantage of facilities in technical education as have the mechanics n towns or the farmers. This is partly due to the fact that fishing communities are widely scattered and not in so direct touch with the main arteries of travel and is also partly due to the absence of the fisherman from his home and town for months. at a time. Again, science itself has not been applied to fishing as it has to manufacturing mining, and agriculture, and great stores of uncorrelated knowledge are locked up in the minds of the individual fishermen.

"Scotland and Norway have forged to the front largely because of the application of technical education and science to the fishing industry in these countries. There are schools of navigation for fishermen in all the important centres in these countries and in the former there are even travelling instructors in navigation. Th best methods of packing, curing and storing fish have received minute attention nad the fishermen educated along this line. The migration of fish has been studied scientifically with the result that the fishermen have found out where the best grounds for catching fish are situated for different times of the year. Deputy Minister of Fisheries for Norway, Dr. Hjort, who came to Canada a year ago represents a particularly rare type of the thoroughly trained scientist who has a facility for practical research that brings immediate results to industry. It is largely through his executive ability and the application of his scientific knowledge that the Norwegian fishing industry has expanded so rapidly in recent years.

"Canada has undoubtedly the best fishery resources in the world. Her fishermen are gifted with a high order of native intelligence, and it needs but the application of science and technical education in a far-reaching, thoroughly sound policy to produce an immensely increased production from her fisheries".

"I am heartily in favor of the establishment of a system of technical training among our fishermen", said Mr. A. Handfield Whitman, President of Robin, Jones and Whitman, Limited. "Arguments in support of such a move are hardly necessary today. Those who have seen the benefits derived from fishing schools in some of the European fishing centres can have only one opinion as to their usefulness. Training schools for fishermen and sailors have for years been in operation in Great Britain, Germany, Denmark, Belgium, Holland and Japan, and although conditions in ths European fishing industry are dissimilar to conditions in this country a modified form of the instruction given there ought to produce equally beneficial results here.

In the countries I have mentioned fishing is carried on almost entirely by means of steam trawlers. The trawlers operate over extensive areas. Some of them steam a distance of 1,800 miles to the fishing grounds and the tendency is to go even farther afield.

"The principal fishing and navigation schools in England are those of Hull and Grimsby. The Hull school was established in 1899. Instruction is free, no charge being made even for the twine and rope consumed. The school is opened practically all the year round, both daytime and evening. The students when in port come in to study usually in the afternoon and evening. There were about 800 men on the roll before the outbreak of war.

"At Barrow the Piel Marine Laboratory holds a class for fishermen every spring. The instruction given relates to general marine biolgy so far as it concerns sea fisheries. The structure of fishes and other useful marine animals, their manner of breeding and feeding, their growth and their habits are explained. Each fisherman is allowed the use of a microscope and dissecting tools and examines everything for himself. Lantern slides are shown illustrating the various particulars dealt with in the course.

"Belgium before the war, had nine schools for fishermen. The training given in those schools was very thorough. One of the schools had steam trawlers of its own which while used in a commercial way were primarly for educational purposes. The equipment of these schools included all the necessary instruments for nautical observations, charts, models for practical illustration of the rule of the road, ship construction, fish packing, upright engine and boiler, etc. A research department in some of these schools carried on investigations in the catching, curing and packing of fish. Thees fishery schools have had a great effect in uplifting the fishermen as a class in Belgium.

"In France the Society for Technical Instruction Relating to Marine Fishing in normal times conducted ten schools for fishermen at different seaports. This society was organized in 1895 for the avowed purpose of increasing the intelligence of the fishermen and enabling the workers in the fishery industry to derive the greatest benefits from their trade. Thorough training was given in navigation, nautical astronomy, netmaking and mending, seamanship, geography, social economy and first aid to the injured. Careful instruction was given concerning all creatures used for food, the placing of nets, curing of fish, etc. The theoretical work at the schools was supplemented by regular trips at sea on fishing craft.

Japan has an elaborated system of technical schools for fishermen. Indeed schools for fishermen are further developed in that country than anywhere else in the world. The Imperial Fisheries school at Tokio have five professors and four lecturers, and fifty-nine lecture and living rooms. The school at Hokkaido has besides lecture rooms, a museum, a cannery for giving instruction in canning fish, a drier for instruction in drying fish, a glue plant for utilizng glue products, and a refrigeration department for showing how to preserve fish in cold storage. Many of the fishermen in Japan take out students from these schools in their boats and for this they receive a bounty from the Government."

"I for one most certainly believe in technical training for fishermen", said Mr. Howard Smith, Manager of the firm of N. & M. Smith, Limited, Halifax. "I don't know that a Technical College could be utilized very much at first so far as practical instruction goes for the reason that it would be very difficult to induce even our younger fishermen to attend such an institution. Short courses of thoroughly practical instruction given in fishing villages are what is needed, and such courses would, I think, overcome initial difficulties connected with attendance.

"It is not of much use trying to change the old fishermen. They are as a rule ignorant and prejudiced and are quite content to do as their forefathers have done. They refuse to change their antiquated methods. Indeed they cling to custom with all the tenacity of barnacles to a rock. Reformation work must begin with the young as is usual where fundamental conditions have to be reorganized and changed.

"In my opinion brainy young men should be chosen for this work and given appointments for life with a remunerative salary of say $2,000 or $2500 yearly. The instructors should first be given a thorough training both theoretical and practical in order to fit them for their work, the education to include sojourns in Scotland, Norway and Japan in order that they might study minutely at first hand the improved methods now in vogue. These instructors would then be in a position to speak authoritatively and could show our fishermen some results of improved methods that would certainly interest them. For instance, the instructor could show his class how herring cured by the Scotch method is easily worth ten dollars. Such a fact would surely strike home to workers who are only obtaining four dollars. The instructor could also demonstrate how the curing of mackerel by the Norwegian method will without any extra effort on the part of the worker increase the price per barrel by fifteen dollars. He could show his class samples of Norwegian cod, cured by the Norwegian process, which sells at Havana for eleven dollars per hundred pounds as against seven dollars for the Canadian product. Incidentally he could inform his pupils that a market at the door of Nova Scotia consumes 40,000 quintals of Norwegian cod every year. The instructor who can inform his students from personal knowledge that by following modern methods they can raise the price of their product by from fifty to two hundred and fifty per cent should not find much difficulty in making them sit up and take notice when he proceeds to demonstrate.

"It has been stated that the benefits gained by fishermen in Europe through technical training does not ensure the same results here for the reason that the steam trawler is used almost universally over there. Any system of technical education must of course be modified to suit local conditions. At the same time I wish to say here that the adoption of the steam trawler would aid greatly in solving the vexed problem of improved cure. I would have the fishing instructor show the fishermen of Lunenberg that steam trawling is as sure to come as that morn follows night.

"There is much work for an instructor to do in arousing our fishermen to a sense of the importance of his trade. The deep sea fisheries of Canada are inexhaustible and more remunerative per square mile of fishing bank than the finest Western wheat land.

"Look at the position of Halifax as a fish distributing center. North, East and South, lines can be drawn radiating through the best fishing grounds in the world. I say 'best', not even excepting the famous 'Dogger' Banks or Norwegian grounds in the North Sea. Our fishery has a marvellous future and we are only beginning to see its possibilities. With the introduction of scientific methods the tide wlll turn and the fisheries of Canada double and treble in volume within the next couple of decades".

"It may be that our younger fishermen could be induced to go to school", said Mr. S. Y. Wilson, Manager of A. Wilson & Son, Halifax. "They would the more readily attend classes if elementary navigation were taught as well as certain fishing processes. I think that if conditions warranted such a move, short courses at various fishing centers would do good. Certainly education—technical training—is badly needed, but the trouble would be to get our fishermen to listen to an instructor. Take for instance the matter of cure. We all know that technical training is undoubtedly required in the curing of fish to a very much greater extent than is realized by the fishermen as a body. At the same time it is doubtful if one could interest many of the ordinary fishermen in a course of instruction in curing. Our Canadian fishermen are hard-working but a short sighted race. Heredity and custom are allowed to determine their choice of methods. The children of the fishermen should be practically educated. In the centres where a large proportion of the population follow fishing it might be well if nature study in the primary schools weer given with the principal occupation of the community in mind. Education is always a slow process. The intelligence, self control and ability that come from an union of education and industry are perhaps in their fullness for the children's children. The life history of fish should be studied from the egg to the table.

"Whatever may be said for or against technical training for the ordinary workers it seems to me that the importance of really scientific investigation can hardly be over estimated. In my opinion the study of the problems connected with the fishing industry of a country should not remain outside the scope of any technical education system.

To obtain really practical results from the education of the workers will be a matter of years. In this connection I have a suggestion to make. If we are to hold our own in the fish industry against competition after the war is over, we should begin as soon as possible to raise the standard of our course. Improvement in this direction could be rapidly brought about through the education of merchant curers who would certainly not be slow in availing themselves of expert instruction. This has been the experience of older countries where scientific curing has been most successful".

"If it would be possible to give practical instruction to fishermen", said Mr. H. R. Silver, Manager of H. R. Silver, Limited, Halifax, "I believe that the results would be gratifying. We have seen right here in Nova Scotia the benefits that have been conferred upon the farmer through the efforts of expert instructors. I refuse to think for one moment that what is possible in the case of the farmer is impossible in the case of the fisherman. Only a few years ago the average farmer of Nova Scotia would look askance at an agricultural professor and listen to his advice tongue in cheek. Today he not only greets a visiting instructor with the glad hand but he travels many miles and spends many days in absorbing agricultural science.

"Now in this country the fishermen today are in the same condition of the farmer of yesterday. He is generally content to carry on his business after the manner of his fathers and is heedless of the revolutions that are being elsewhere effected in his trade. What is needed now is a specially trained instructor who would not only give lectures but carry on actual demonstrations in the fishing community. The indifference of ignorance would most assuredly in time be exchanged for a lively interest. Of course, most of the educative work would have to be done among the younger men. It seems to me that proper methods of cure should be the first lesson taken up. I am aware that the European fishing schools go in for instruction in packing and net-making. In this country, however, the exporters have charge of the packing and nets can be bought cheaper than they can be made by the fishermen.

"We have here in Nova Scotia one of the best equipped technical colleges in America. A class is held there in Navigation but the fishing industry is not represented.

"The time perhaps is not yet ripe for a regular fishing class at a central institution, but would it not be wise to establish now a special department in our Technical College where individual research could be carried on in all problems connected with the catching, curing and packing of fish? I believe that such a department could be made of great benefit to the fishing industry. Of course, the question of expenses comes in here. The Technical College is a Provincial Institution while the fisheries come under the jurisdiction of the Dominion Government. I would suggest therefore that the Federal Government establish such a department and thus do for the fishermen what they have already done for the farmers".

(To be Continued)

Letters to the Editor

To the Editor of The Canadian Fisherman:

Dear Sir,—In the interests of those fish dealers in the inland centres of population, who are trying to encourage the more general use of fish, I would like to offer a few suggestions.

If the men who ship fish from our Atlantic ports, and read your paper with as much interest as I do and will seriously consider the suggestions offered, I believe the consumption of fish will receive a great impetus. My experience has been that inquiries sent out by telegram, asking for quotations and other information, have in many cases not been answered at all, and in some cases the replies are sent too late to be of any use.

A prompt reply by wire, would always be appreciated and generally will result in an order.

Another cause for complaint is the neglect to notify dealers, when unable to fill orders in full.

Shipper should remember that dealers expect to receive goods ordered, unless advised to the contrary.

A telegram costing 25 or 30 cents would often result in a saving of one hundred times the cost. According to the old proverb, which still holds good: "Knowledge is power." Still another suggestion is, to use sufficient ice to make reasonably sure that fish will carry in good condition to the inland centres of consumption. Frequently, in fact, too frequently, fish is delayed, owing possibly to a damaged wheel, or neglect in trans-shipping, and if the fish is only barely iced, reaches the dealer in a condition, which may not be altogether bad, but in such shape that the consumer is not getting the best.

In such cases the fish business gets a "knock." There is no doubt whatever that the public in general is willing to eat more fish, providing it can be delivered to them as fresh as it can possibly be six, eight or even 1,000 miles from the source of production. I feel sure that the Fish Dealers are only too anxious to "boost" fish, but the shippers must do their part in seeing that the demand is met, with choice stock and at as reasonable a price as possible.

Wishing the "Fisherman" and the "Fisheries Association" continued success. I remain,

Yours Respectfully,
T. W. C. BINNS.

Ottawa.

The importance of the fishing industry in British Columbia is indicated by the number of vessels and men employed in the business in 1915, viz., 58 steam fishing vessels (tonnage, 3,761), valued at $1,071,575; 156 sailing and gasoline vessels, $573,180 in value; 3,076 sailboats; $217,605 in value; 2,434 gasoline boats, $1,018,150 in value; and 190 carrying smacks, $75,650 in value. The total value of vessels, nets, canneries and other buildings and the wharves used in the industry in 1915 amounted to about $12,500,000. Of the 20,707 men employed, nearly one-half, or 9,391, were employed on land, the remainder on vessels.

Who's Who in the Fishing World

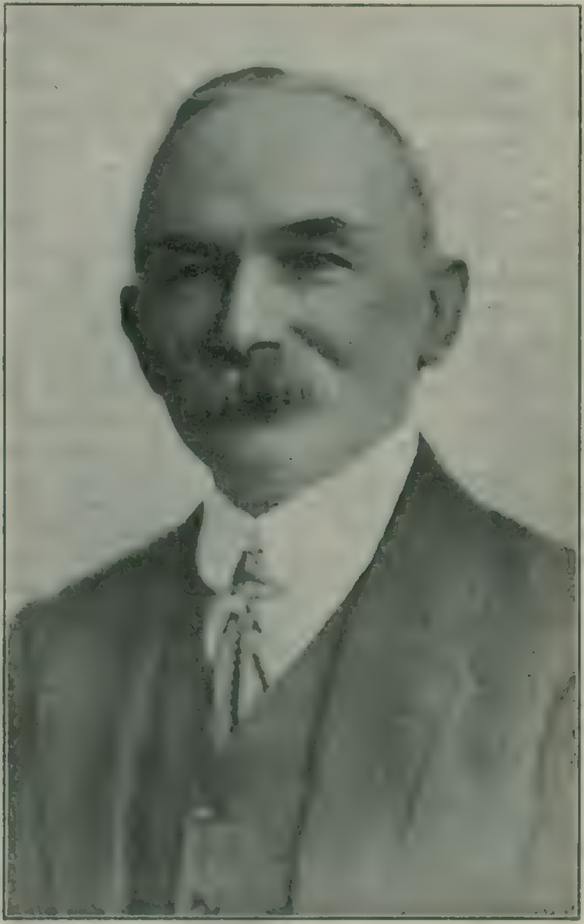
We congratulate Dr. C. McLean Fraser, Curator of the Biological station at Departure Bay, B.C., on his election to the Royal Society of Canada, thus entitling us to place the letters F.R.S.C. after his name and obviating the necessity of restating that his merit as a scientist is fully acknowledged in Canadian scientific circles.

Dr. Fraser has been in charge of the Biological station at Departure Bay for the past ten years, and has been engrossed in important research work, the results of which have been embodied in the annual reports of the Biological Board of Canada. Steadily and certainly he has achieved a notable place among biologists of international reputation. It will be found, when the report is published, that his presence on the sea lion commission gave the decisive turn to the whole investigation, while his pen graphically depicted the complete life history of that depredatory, not to say piratical, sea animal.

Among his fellow scientists in British Columbia Dr. Fraser is recognized as a leader, as his recent election to the presidency of the British Columbia Academy of Science proves. He has been in demand as a lecturer before local improvement and scientific societies and has evinced a commendable disposition to help all inquiring students of science. No gathering of men interested in the fishery industry on the Pacific is complete without his presence, and it is not forgotten with what appreciation his remarks on the need of Biological research was received at the first Fish Day dinner in Vancouver. He associates with American Scientific Scoieties and is as well known in Washington and California as he is in British Columbia.

Dr. Fraser was born in Elora, Ont., and graduated from Toronto University in Science in 1898, and the University has no alumnus in science whoes talents are being used in the service of Canada to better advantage and with more credit to himself than Dr. Fraser. When the real boosting of our Canadian fisheries comes to be written it will be disclosed how great a part Dr. Fraser willingly played.

Another Who's Who this month is not a Canadian, but an Englishman who is very much interested in the fisheries of the Pacific Coast. Mr. Thomas Robinson is a steam trawler owner, fish salesman and general merchant of Grimsby, England, and though resident in Great Britain, is very well known to the trade in Canada through his work in introducing Canadian fish to the British public. Our subject was born near Grimsby in 1855 and after leaving school when fifteen years old, was apprenticed to the North Sea fishing and went through the mill for fourteen years until he became Captain of his own ship—a sailing vessel, as steam was not then generally introduced.



In 1883 he gave up the sea and made a start as a fish merchant ashore by selling the catches of his own vessel. It was hard work at first and progress was very slow, but pluck, grit and perseverance formed a business that gradually increased. In 1893 Mr. Robinson embarked in the steam fishing and steadily increased his fleet until at the commencement of the war he was running twenty trawlers.

Our Who's Who was introduced to Canada through the medium of his daughter who married a gentleman at Nelson, B.C., Mr. Robinson paid a visit to the Coast and gave some attention to the fisheries there. During the course of another visit in 1911, Mr. Robinson became interested in the Canadian Fish and Cold Storage Company, Limited, of Prince Rupert, B.C., and joined the company as Consulting Director. He immediately supervised the construction of three steamers for the company, suitable either for trawling or long line fishing. These vessels, the S.S. Andrew Kelly, James Carruthers and George E. Foster, were built in Hull and sent out to Prince Rupert to operate on the long line halibut fishing out of that port. This was an entirely new venture, but since its inauguration it has proved a great success and the vessels are still making good trips. After the steamers arrived on the Pacific Coast, Mr. Robinson paid another visit to Canada and spent some time in Prince Rupert in his official position. At that time he made arrangements that frozen fish of the highest quality should be put up and consigned to the British market. Consignments were sent across during the winter of 1912 with satisfactory results and Mr. Robinson claims that this was the first venture whereby glazed, frozen fish were put on the English market successfully. Since that date he has managed to overcome the prejudice of the English public against eating frozen fish and his sales of frozen Canadian halibut and salmon have steadily increased. In Mr. Robinson's opinion there is a good future market in Great Britain, not only for frozen halibut and frozen salmon, but also for witches, haddocks, finnans, fillets, etc., if they are properly put up and frozen so that they will reach England in a sound condition.

The fisheries of Canada have a strong representative as to their quality and value in Mr. Robinson, and he is ever ready to boost Canadian fish to the British public. We take great pleasure in introducing him to the readers of the Canadian Fisherman.

DEPARTMENT OF THE NAVAL SERVICE.

Special Instruction in Scotch Herring Curing.—Supplementary to the Regulations Made Under the Fish Inspection Act, 1914.

The trade in Scotch-cured herring in the United States is largely with the Jewish people, and they are extremely particular as to the quality; size and cure of the fish.

The right quality, graded and cured up to the high standard demanded by this trade brings high prices, but fish that are not just exactly as the trade wants them either remain unsold or are disposed of at very low prices.

For example, while some Scotch-cured herring from both Canada and Newfoundland last season, were sold in New York for $15.00 per barrel, some were sold for $3.00 and some again could not be sold at all.

With last year's experience before them, the buyers will therefore be more careful than ever during next season.

Curers must not forget that Canadian Scotch-cured herring were sought after by the trade last year for two reasons;

(1) The limited supplies from Europe and the enormously high prices asked for the small lots of Scotch and Dutch herring that were available.

(2) The much lower price of Canadian Scotch-cured, which made them acceptable.

When the best Canadian and Newfoundland Scotch-cured herring were selling at from $12.00 to $15.00 per barrel, last season, the best herring from Scotland were selling at from $20.00 to $30.00. It will, therefore, be realized that unless Canadian curers can be advised to exercise the very utmost care in packing only the best quality during the coming season, they will surely find that the old prejudice against Canadian Scotch-cured herring in the United States will become as strong as ever, and will result in the complete shutting out of these after the war is over, and normal supplies again come in from Europe, at normal prices.

Curers are therefore very earnestly urged to rigidly follow the Department's instructions contained in the Fish Inspection Act and the supplementary pamphlets that have been issued from time to time, and submit their fish for inspection and the brand in order that buyers may have some assurance as to the quality of the goods.

Barrels and half-barrels of the size and style described in the pamphlet on barrel-making, recently issued by the Department, are absolutely necessary for this trade.

At page 22 of the Fish Inspection Act, (copies of which may be had on application to the Department), will be found a description of the Scotch method of curing herring, and if curers will carefully and intelligently follow that description, there can be no doubt about producing an article in accordance with the desires of the trade; provided always, that fish of the right quality only are cured in this style.

Lareg coarse fish and spent fish should not be cured in the Scotch method. The trade does not want these. Medium sized plump fish are most acceptable, and no fish larger than the maximum named for "Large Fulls," on page 22 of the Fish Inspection Act, should be Scotch-cured for this particular trade.

The fish should not be wasted or soaked in water before being packed.

They should be perfectly fresh. The closest watch should be kept for drowned herring,—herring that have been allowed to remain meshed in the nets for a day or more.

These should be carefully separated from the fresh fish, as they cannot be cured, and a few mixed in would positively endanger the sale of a whole shipment.

The fish should be gibbed and packed within about fifteen hours after being taken from the water in summer time.

They should be handled in such a way that the scales,—or as many as possible,—will adhere to the fish all through the curing process, in order that they may retain their silvery sheen when cured and marketed.

For convenience in gibbing and grading the fish should be discharged from the boats into moveable boxes, measuring about 12 feet in length, 4 to 5 feet in breadth, and 1 foot in depth. The bottom boards should be half an inch apart to allow liquid matter to filter away. The boxes should rest on legs standing about 20 inches high.

(Continued on Page 250).

THE ATLANTIC FISHERIES

CANSO, N.S.

(Special correspondence.)

For the last month or so, fishermen in all branches, with the exception, perhaps of some lobstermen, have been rejoicing in the best fishing experienced at this season, for many years. Good fishing weather, with plenty of fish offshore waiting to be caught, has resulted in large catches with good financial benefit to those engaged in the industry. With the present cost of living under war conditions, this satisfactory state of affairs comes in more than ordinarily acceptable. Fishing being the backbone of Canso's industrial life, good times among the fishermen helps largely to make good times in the town generally. Trappers, drifters and line fishermen have all been geting a share of the big fares. The day after penning my last previous report, the writer was told of the Mackenzie trap at White Point stocking almost a thousand dollars in three days. The drifters also have been doing particularly well with the mackerel, lately.

With the 20th of June, the open season for lobstering ends. The season on the whole did not total up as well, I believe, as last year, though the most of the lobstermen have had a fair catch. The cold backward weather conditions of April made that month almost a blank, and much behind the same month of last year. Patrol Boat E has been collecting spawn for the hatcheries during the season, making regular trips to Whitehead, Mulgrave and other points.

CHARLOTTETOWN, P. E. I.

The lobster fishing season in this province closes on the 26th, except for that small portion of Northumberland Strait, between Cape Traverse and West Cape, where the opening and closing dates are a month later than for the rest of the Island. Owing to the ice around our coast delaying the starting of fishing until some time after the time allowed by law, an effort was made to secure an extension of the season. At the last session of the Prince Edward Island Development Commission held in Charlottetown about three weeks ago, the Committee on Fisheries reported in favor of extending the season to July 10th, and a resolution to that effect was passed unanimously by the Commission.

The Committee took the ground that in the districts where the shipping of live lobsters is the principal branch of the industry that the season is one hundred days longer than in those sections, where canning is carried on exclusively, thus suggesting the idea that the influence of those representing the live lobster industry dominated the council that formulated the regulations.

In this province, canning is carried on almost exclusively, very few, if any live fish, being shipped, and under the most favorable conditions sixty-one days is the maximum limit, for the greater part of our fishing territory. In many instances, heavy ice prevented fishing up to May 30th this year, and in one section between East Point and St. Peters on the north side, no lobsters were trapped until about May 31st. Even the full two months' season, allowed by law—April 26th June 26th, for the early district—is short as compared with other parts of the Maritime Provinces; hence the handicap to our Island fishermen is quite obvious.

"If the present regulations are continued," said the Committee, "the smaller concerns will be obliged to give up operating canneries on their own account, and the industry will eventually fall into the hands of monopolists which would be decidedly detrimental to the interests of the community. If a season of reasonable length is permitted and regulations strictly enforced, there is no danger of lobsters being exterminated. What is wanted is a rigid enforcement of the close season."

It was decided to have a conference this fall, of packers and fishermen from different parts of the Island, in order that regulations be formulated which will meet natural conditions and give the Island an opportunity to carry on canning on an equal footing with other parts of the Maritime Provinces.

At the time of writing it was not known whether an extension of the season would be granted or not. Fishing has been good and although it fell off somewhat between the 12th and 19th, the pack promises to be fully up to the average, and ahead of last year. The French embargo has caused considerable uneasiness, and as a large part of the Island pack has been sent to France, there is a disposition in some quarters not to insist upon an extension in the event of the increased catch tending to adversely affect prices. Scarcity of bait this season has been reported from a number of sections. In order to meet any disadvantage which might arise out of the closing up of the French market during the war the Commission recommended that the President, F. R. Heartz take up the question with the Department of Trade and Commerce with the object of having the Department advertise lobsters throughout Canada and the United States in order to increase the consumption in the markets to which we have access.

It was pointed out that the Federal Government, during a season when apples were a super-abundant crop, had carried on an advertising campaign in order to find a market for this fruit. Wherefore a movement to popularize the lobster and increase its consumption at home, would be in order.

With regard to other branches of the fisheries, the following recommendations were approved of by the Commission:—

(a). Encouragement should be offered fishermen to locate in this province and engage in deep sea fishing.

This is capable of great development. We lost many of our deep sea fishermen when the mackerel left our shores about twenty-five years ago. We are situated right on the fishing grounds. Expensive boats are not required. Fishermen can harbor on land every night and dress their catch ashore. Hundreds of fishing vessels from the States, Nova Scotia and New Brunswick frequent our coasts and make money. Why should not Islanders learn a lesson from them?

(b). Our fishing advantages should be advertised in the fishing districts of the North Sea, with a view to interest intending immigrants.

(c). The Government should provide technical education for fishermen, with regard to catching, dressing and curing fish, also with regard to navigation and the handling of marine motor engines.

There is a scarcity of trained men for curing and treating fish.

(d). The Dog Fish Pest should be removed by having these fish reduced to fertilizer oil, or cured and dried for fox feed, for which, as experiment has proved, they are admirably adapted.

(e). Fishermen should co-operate by forming combinations of about ten men who could work jointly, sharing expenses. Let part of their outfit be a codfish trap, which could be used when the fish are inshore. When they move to deep water they could be followed with trawls; two men in a lobster boat with a trawl of 1,000 hooks.

The Committee, in their report on the oyster fisheries, pointed out that there has been a falling off at the rate of 900 barrels per year since 1896, and that this depletion is largely due to reckless methods of fishing. Steps should be taken to assist private cultivation, and the placing of the enterprise on a practical and commercial basis. The improvement of the natural beds is of the greatest importance, as on the conservation of the oysters still remaining on these beds, one must depend for spot production, for their replenishment. The Committee recommended:

(a). A close season for a term of years in conjunction with an active campaign against star fish, and the removal of silt deposits from the beds, or, if there should be no close season, the establishments of a strong patrol system to prevent illegal fishing.

(b). The payment of a bounty on star fish.

(c). The leasing of barren bottoms for private cultivation; with Governmental assistance, and the non-imposition of a rental or tax whilst the industry is being developed. Instead a royalty or barre ltax might be substituted.

(d). The Provincial Government should aid the Federal in protecting private beds.

(e). Owners of private beds should be allowed to procure for seed, small oysters which grow on flats and shoals and which are now killed every winter by the ice.

(f). The Government should secure an oyster expert from abroad to educate our local oyster growers.

The Committee on Fisheries of the Development Commission consists of A. J. McFadyen, of Tignish, chairman, manager of J. H. Myrick & Co., W. F. Tidmarsh, Charlottetown, manager for the Portland Packing Co. W. P. Callaghan, St. Louis, L. D. MacNutt, Malpeque, and D. F. Macdonald, Souris. They represent the industry in all its branches, and include the largest lobster packers on the Island.

IN NEWFOUNDLAND.

(From Our Own Correspondent).

The fishery season is now in full swing; and from various parts of the coast we get a daily report of operations. The general outlook is promising.

The Bank fishery is possibly the best we have had to record in many years for first baitings, and news from the southern ports is most encouraging. Several Grand Bank and Burin vessels as well as others in Fortune Bay have brought in large trips. Capt. Tom Hollett and Capt. Thornhill of Grand Bank are the respective claimants to the highliner position; but we are not in a position to state to whom the bouquet belongs.

The following arrivals have been reported to the Customs: the Frank Adams, of St. Jacques, 950 qtls; the Stella, Metamora, Elva, Blanche, Utowana, Oregon, Elsie Norman and the Ornate with fares varying from 600 qtls to 950. The vessels report fish plentiful, but all of them experienced very rough weather.

The big Labrador fleet are now on the move. Many of the schooners from the northward had quite an unusually long tie-up in St. John's after they had got their supplies. Most of them are now away either on the French Shore or bound to the Straits.

The S.S. Diana which took down the Blanc Sablon dealers of Grant who is agent for Job Brothers returned yesterday after landing the crews at destination. The ship reports no ice anywhere along the coast but a few small bergs in the Straits. There was a good sign of fish at Greenly Island and Isle au Bois, and there is an abundance of caplin in deep water.

The outlook for the shore fishery around Conception Bay, in Placentia Bay, and generally around the coast is quite cheering. Caplin are reported as being plentiful; and it looks as if the trapmen were going to gather a very abundant harvest. Already along the Southern Shore at Tor's Cove, Witless Bay, good work has been done and some traps have landed nearly a hundred quintals.

A very remarkable feature about this section of the coast this season is the increase in the number of motor skiffs and boats. It was feared that the extraordinarily high price of motor fuels was going to have a disastrous effect on this special phase of our industry; but it seems as if the progressive spirit has taken a strong hold on younger fishermen especially. This is a wholesome indication of the advancement of the fishery business. We are getting out of the rut which we had been furrowing for centuries, and we are beginning to realize what modern methods mean both as earnings factors and agencies for lessening the hardships connected with the fishery.

The class of boats turned out this winter are excellent models. Many of them were built in Bonavista Bay which has the reputation of producing the best thing in the boat line in the Colony. A special class of engine has been provided to meet the requirements of the fishermen—nearly every maker is manufacturing a type which will give good value and stand lots of rough usage. It is really remarkable how our younger fishermen take on to the motor engine business. They seem to be able to effect repairs that phase the ordinary shop mechanic.

The Herring Outlook.

Some good sales of Spring herring were made recently at $4.25. There is little or no demand for

Scotch cure. Operations are going on actively in the herring centres, in Placentia, Notre Dame, St. George's and Bonne Bay. It is not known yet whether the close season for the seining of herring will be enforced (from June 10 to September 1). Last year the Governor-in-Council on the advice of the Minister of Marine and Fisheries suspended the law. Possibly, the suspension will continue this year.

Some of our local packers got their fingers burned somewhat badly last season in the Scotch cure business. The approaching warm weather will have a depressing effect on this brand; but we really cannot understand why our products cannot get a stronger hold on the American market. Some time ago we saw a quotation of $24 for Shetland goods and $30 for Castlebays. The fact is that we must get down to the smaller package and get our goods into kegs or tubs. We can do this very readily; but it behoves somebody with initiative to move.

The Lobster Fishery.

The lobster fishery in Placentia and Fortune Bays has opened well; and the catch is fully fifty per cent. better than it was last year, though from present indications the catch will not be large. Fewer fishermen are engaged in it; and the price will likely be around $14.50. Much depends upon the possibility of getting access to the French market, where an embargo has been placed on all such luxuries as lobsters. We overdid the lobster industry for some time; and perhaps after all the shortage of fishermen engaged in the business now may prove to be a blessing in disguise. Germany was our best customer before the war.

Codfish Deals.

It is announced that Great Britain has negotiated for the purchase of the entire Norwegian catch. From a commercial standpoint this is not satisfactory to us. There is a feeling abroad that we are not getting our share of the British fish trade; and it is said that representations will be made by the Board of Trade to have this looked into. Premier Morris is now in England, and he will doubtless be able to give the matter closes attention. A small quantity of last year's shore catch came into St. John's during the month: but the prices paid for it were rather a disappointment to those who had kept it over. The quality was not of the best. The regular market quotations prevailing to-day are:

Large, medium, and small merchantable	$5.50 to $6.00
Large, medium, and small Madeira	$5.00 to $5.50
Soft Labrador (practically no demand)	$3.50
Large and small West India	$3.00 to $3.50

The Oporto market which caused us such anxiety some time ago has panned out very satisfactorily. A message to the Department of Marine and Fisheries some days ago stated that the prices of fish arranged by the Control of Supplies System were from 43 to 45 shillings per quintal (112 lbs.) for large fish, and from 30 to 41 shillings for small. This is by no means unsatisfactory.

Fish Exports for May.

From outports:

Dry Fish: To Europe	22,936 qtls.
Pickled Fish: To United States	3.660¾ qtls.

and 1.428½ barrels of herring.

From St. John's—Dry Codfish:

To Brazil	20,439 qtls.
To Europe	21,232 "
To Canada	3,000 "
To West Indies	4,249 "
To United Kingdom	536 "
To United States	109 "
	49,565 qtls.

The increase of shipments in dry fish is for the month compared with 1915, 12,180 quintals. In pickled fish we have an increase of 1,232¾ qtls.

Oils.

There has been a temporary decline in Codoil. The latest sales were made by the F. P. U. at $160 per tun. Job Brothers have sent out a considerable shipment by their auxiliary "Alembic" to New York. There is now very little oil available. The market, however, should not decline to any appreciable extent, as we have only one whaler, "The Cacholot," operating this year. She is operating at Hawkes Harbor, Labrador.

Notes.

The latest arrivals from the Banks at Burn's are: Ella C. Hollett, 700 qtls.; Susan E. Inkpen, 800 qtls.; Mooanam, 700 qtls. Several new purchases have arrived, the latest being the "Lawson," owned by Baine, Johnstone and Co. She is now in dry dock for an overhauling. The other vessels reported last month are now on their way south or across the herring pond. We wish them success.

LUNENBURG.

(Special Correspondence).

The Lunenburg fleet has with very few exceptions, again made good and the catches at the high figure offered will surely make big money for both men and owners.

At first, when the spring winds were raging on the banks, the vessels' losses were heavy, many of them losing much of their gear, including anchors and cables. Then it was felt that there might be blue days ahead for the fishermen, but fish were plentiful and the weather improved, and when the vessels began to arrive the signals were all set for prosperity. The only drawback is that the fish are not of much size, and there is not a big demand for small stock. Good fish, however, are bringing unusually highp rices; cod being quoted as high as $7.25 with haddock at $5.75. The average price ranged from $7.00 to $7.10. Two years ago one, or two cargoes sold for $7.50 on frozen baiting, but this is not a general thing.

About all of the frozen baiting catches for this spring, which were landed in April were sold at an early date and nearly all have been delivered. It will readily be seen that these vessels with full fares, and prices ruling around $7.00 will yield big dividends to all concerned which certainly will make good times for Lunenburg.

Despite the rough weather this spring there was no loss of life on the Banks, but two sad drowning accidents occurred after the vessels were in port, one at Lunenburg and one at LaHave, in each instance the cause being the same, overloading the dory when landing fish.

These accidents occur year after year, and the tragedies seem all the greater after enduring the hardships of a banking trip to come home to be drowned within sight of their own doors. It seems as if there should be some gauge for the load, and the captains of the schooners should insist that only a reasonable quantity of fish should be taken ashore, especially when there is a heavy sea running.

An exchange speaking of the Norwegian catch speculates as to what the British Government will do with that produce as they are reported to have contracted for it to prevent its going to Germany, and further remarks that it is unlikely that these fish will be wanted in England, and that the trade here are wondering if they will meet them in competition in markets which Nova Scotia supplies. This may be the case in some localities, but as far as Lunenburg is concerned there have been many inquiries for Lunenburg fish, offering big freights and good prices. The Cork market is also anxious for our product and the prices quoted are good. Yarmouth merchants are also said to have had inquiries from these ports.

The bankers have practically all been refitted for the summer trip, and have sailed with every prospect of a good season. Despite the fact that many of the former crews are at the front fighting for the Empire, and there were fears that it would be hard to secure men, there appeared to be no difficulty in getting crews this season and the number of young men to man the dories seemed equal to other years, though, of course, it must be remembered that the number of schooners is not as large as formerly.

The following is a list of the schooners which have made landings this season, those with the larger catches being the total for both trips:

Schooner. Master.	Catch qtls.
James Douglas—Romkey	1,000
Matanzas—Vickle	800
M. M. Gardner—Backman	1,000
Lilian B. Corkum—Corkum	1,370
Henry W. Adams—Zinck	750
Lauretta Frances	1,175
Uda A. Saunders	1,000
Lucille M. Smith	950
F. M. Toro—Corkum	900
Elsie M. Hart—Corkum	675
Mary D. Young—Spindler	900
John B. Young—Himmelman	750
Clintonia—Mack	1,400
J. Burton Cook—Cook	1,200
W. T. White—Knock	1,200
Frances W. Smith—Mossman	1,200
Vivian Smith—Knickle	900
Delawana—Cook	1,300
H. H. MacIntosh—Wynacht	1,170
Carrie L. Hirtle—Hirtle	1,200
Auracania—Hebb	1,200
Aricola—Knickle	650
Donald L. Creaser—Creaser	600
Lucile B. Creaser—Creaser	700
Marion Mosher—Mosher	800
Elsie L. Corkum—Mosher	650
Vera J. Himmelman—Conrad	1,000
Lucile M. Schnare—Schnare	800
Benevolence—Corkum	1,100
Warren M. Winters—Allen	1,000
Muriel Winters—Winters	900
J. D. Hazen—Himmelman	1,100
Muriel E. Walters—Walters	1,000
R. L. Borden—Himmelman	1,000
W. H. Smith—Naas	700
Cecil Beck—Heisler	900
Earl Grey—Shupe	800
Mary Fleming—Silver	900
Marion Silver—Silver	700
Doris L. Corkum—Corkum	1,250
Marjorie McLashen—Wamback	1,100
Gigantic—Parks	750
Elsie M. Porter—Eisenhauer	800
Hawanee—Cook	800
Doris V. Myra—Myra	1,050
Revenue—Zinck	700
W. C. Mackay—Diehl	1,300
James Parker—Horne	700
Itaska—Ritcey	950
Jennie E. Ritcey—Ritcey	800
Frank J. Brinton—Gilfoye	1,000
Lewis H. Smith—Westhave	700

The schr. "Lucille B. Schnare" has since been run down on Grand Bank by a British warship. Two of the crew are reported missing.

ST. JOHN'S, N.F.

(Special Correspondence).

The Labrador Fishery.

The Labrador fishing fleet, especially those from Conception Bay, are moving, and in a week or so will have arrived on the Labrador coast.

From all accounts the fleet this year will not number more than seven hundred sail, owing in a large measure to the number of the young men who have enlisted during the last few months in the Navy and Army.

Those young fishermen who have enlisted were amongst the very best men for the fisheries, and some of them were masters of fishing schooners themselves. The loss of such men as these to the industry is incalculable, and it is not unlikely that the Labrador catch for this season will on the whole be smaller than that for some years past. It is extremely likely that this fishery will open much earlier than last year; last spring the ice remained on the Labrador coast till July, and in consequence navigation on the coast was dangerous, especially on the northern end, while the presence of ice made the setting of traps imposible.

At the present time, judging from late reports received, the Labrador coast is almost entirely free from ice, and if the present winds still continue it is not unlikely that this fishery will be in places, more than a month ahead of last year. Forerunners of the main Labrador fleet have arrived on the coast since early in May; these have the object in view of securing the best trap berths, and on account of the keen emulation existing this year to secure the best berths along the coast, the main body of the fleet wil start about June 15th, which is ahead of most former years by some days. It is said that gill net fishing will be a feature of this season; these nets were first introduced into that fishery last year by Capt. Hollett, of Burin, in his banking schooner, and his success has, we learn, induced many others to purchase such equipment this spring, in St. John's, with other supplies, and it is expected that they will be used largely this summer.

The following is a list of vessels which cleared for the Labrador fishery. and Straits, up to June 3rd., with their tonnage, and crews:—

Port	Vessels	Tons	Crew
Conception Harbour	1	54	41
Spaniard's Bay	1	77	62
Twillingate	39	1739	297
Little Bay Bulls	7	302	50
Channel	9	99	30

The Shore Fishery.

The shore fishery for both hook and line men has begun, but as yet there are no large catches to report. The following reports were posted yesterday in the Board of Trade Rooms, from the Customs Officers on different parts of the coast:—(From Rose Blanche Harbour to Le Cou).

"During the week five schooners arrived from Cape Breton shore with from forty to seventy quintals each. The catch is 10,220 quintals, and for the last week 260 quintals. Not much is doing at present as bait is very scarce, and all the shore boats are away, fishing at other parts of the coast." (From Southern Head to Knight's Cove Pt. on the east coast). "Prospects are very poor, and there is very little fish reported on the grounds. The liners are well supplied with herring bait, but have done very little. 11 traps and from eight to fourteen hook and liners are fishing. The total catch is 260 quintals."

(From Colinet Island to the Head of Salmonier on the South coast).

"The traps are not yet out, but some twenty boats are fishing, the catch to date is 1500 quintals, with five hundred for last week. Prospects are fairly good and there is some herring for bait, but it is not plentiful. The fishermen from the outer grounds report cod plentiful but bait scarce." (From Twillingate to Trump Island on the North Coast).

"The catch is 477 quintals with 16 for last week. Thirty-five or forty-five traps are fishing, but no boats or skiffs. The trap fishing is rather poor, as part of the week the water was too rough for all to attend to the traps. A few scattered places did fairly well, but the others very poorly. The seines got nothing owing to the heavy sea. A good sign of salmon continues, and caplin is getting plentiful. Prospects are not much improved."

The fishing villages around St. John's, have reported little or nothing to date, although all the traps are out, and hook and line men are on the grounds every day.

The number of men engaging in the shore fishery this year is very great, and is more than last year. This is accounted for by the excellent prices which prevailed for fish last fall, and which is inducing many who engaged at other work to resume the fishery, but still more is it due to the large number of men who are engaging with the assistance of motor boats. The introduction of motor boats into this fishery is most striking. The Trade Review speaking on the subject estimates that there are now in use in the fisheries in the country over 3,000 motor boats, of which it believes over four hundred have been introduced during the spring for the fishery this summer. The introduction of motor boats will incidentally mean that those who use them—like those who used them last year—will be enabled to go farther off the coast in a day than ever before, and will thus participate in the advantages of fishing on grounds never yet touched. The total shore fishery catch for this year therefore; if the fish are found moderately plentiful may be expected to be larger than for some years past. The favourite motor engines with the majority of the fishermen seem to be the Acadia, Bridgport, Fairbanks, Caille Perfection, Ferro, Coaker and Mianus.

The Straits Fishery.

The fishing fleet for the Straits of Belle Isle have nearly all left for their destination. Latest reports for there are most encouraging, and show signs of a large amount of fish striking in. The Deputy Minister of Customs received word from Blanc Sablon recently that both fish and caplin have struck in from Bonne Esperance to West St. Modiste. Traps are getting from twenty to thirty quintals per day, and prospects for good fishing are in evidence. This report is considered good, and those schooners which are in that vicinity will have little difficulty in securing full loads in a few weeks, if the present weather conditions hold good.

The Bank Fishery.

The entire western banking fleet, of the districts of Burin, Grand Bank, and Fortune Bay principally have arrived in port and are now securing baitings, to resume the voyage on the Grand Banks. One of these schooners the Gorden W. Hollett, Capt. Tom Hollett arrived at Burin last week to replenish her bait supply, and had on board at the time 1,000 quintals of cod, which was taken in the Gulf of St. Lawrence and on the Quero Bank. Cod was reported plentiful. The Gorden Hollett has since secured a sufficient baiting, and will resume fishing on the Grand Banks, for the next few months. This vessel has already secured this year since fishing opened early in the spring 2,200 quintals. On the banks off Cape St. Mary's there is good fishing, and reports from there are to the effect that herring bait is plentiful and prospects are bright.

A large number of the fleet, however, are waiting to secure caplin baiting before resuming the voyage. Caplin have just struck in, in several places around the south, and west coasts, and in Holyrood in Conception Bay, and in a few more days it is expected that the entire banking fleet will have baited and sailed for the banks with their fresh and attractive baiting.

The Herring Fishery.

To date the Herring fishery in Bay of Islands, and Bonne Bay on the west coast has been very poor, and unless a great strike in of the fish occurs during the next few days, this season's fishery will be a failure.

The Salmon Fishery.

It appears that salmon are again returning to the coasts in plenty, and reports all along the south, and west coasts are to the effect that the size of the fishery is much larger than last year's, and that the fish are returning to large sections of the coast which have been practically deserted for twenty years or more.

The Lobster Fishery.

The lobster fishery has opened well, and in those sections of the country where the industry is being engaged in, the fishery is fully 100 per cent better than at this time last year, but against this is the fact that there are thirty per cent less packers engaged this year than last and in consequence, the total returns will not, at the most, be above the average.

The Turbot Fishery.

This industry was engaged in on a commercial scale for the first time on record, in this country, last year, The fishery was prosecuted at the solicitation of a Gloucester firm who came to Newfoundland, and offered excellent prices to induce the fishermen to engage in the industry. This fish is plentiful in nearly all the Bays of the island.

Last year considerable fishing was done in Trinity Bay and the fish was found very plentiful there, the total catch being sold to the Gloucester buyers. The Trade Review referring to this fishery said recently: "Out in the deep water of all the Bays, particularly in Trinity Bay, they are to be found all the year round. The industry is growing there rapidly and is becoming a valuable asset to the fishermen."

Cod Oil.

Owing to the large number of people who are going into the work of buying and refining cod oil this season, and the good prospects for making it a most remunerative industry if properly carried on, the Minister of Marine and Fisheries has passed "An Act respecting the Refining of Cod Liver Oils." The bill enacts that henceforth no on eshall engage in the business of refining cod liver oil, without having first obtained a licence, from the Department of Marine and Fisheries, under a high penalty. Also no person shall export from Newfoundland any refined Cod Liver Oil without having the same first inspected and branded, under a high penalty for so doing. The Department of Marine and Fisheries has received during the last month many hundred applications from persons for licenses to engage in the industry this year. The number of persons engaging will be greater than ever before. The value of the industry to the country last year was approximately one million dollars, while with the system and new regulations that will prevail this year will likely make the industry greatly more valuable.

As against this however, has come a decline in price of that article during the last week, which is thought not unlikely to be the result of so many engaging in the work of refining oil. Many of the keenest dealers to confirm this probability assert that the decline is not at all only a temporary one, but is likely to remain so. Common cod oil which during the spring and till early in June sold at $180 per tun now sells for $150 per tun, and the market is weak at this figure.

Considerable quantities of new oil will be coming to St. John's during the next few weeks.

Codfish.

The tendency is for a decline in prices in this commodity. Early in the month, merchantable fish was quoted at $6.00 to $6.50 per quintal.

At the present time this quality of fish is offering for $5.70 to $6.00. from schooners. Labrador fish is in poor demand; the price is from $3.00 to $3.50 per quintal, but of this fish there is very little offering.

Herring.

There is a poor demand for herring (Newfoundland) at the present time in the American market, the herring eating season there being over for some months to come. Under the supervision of inspectors the catch this spring was put up almost entirely in the Scotch method, and as a result the catch packed in barrels during the spring is fetching better prices than heretofore. As high as $8.00 is being paid for Scotch pack, while round herring in the ordinary barrels is fetching about $4.25 per barrel.

Lobsters.

Owing to the exceedingly small lots of lobsters that are being offered to the local trade, the price has advanced a little lately, and now remains at $15.00 per case. No new pack has yet come in but the present prices would in any case likely remain so, as the amount to be marketed is exceptionally small.

Cod Oil.

Almost the entire stocks have been cleaned out during the month, principally to New York buyers. Small lots are held by Job Bros. & Co. and the F.P.U. Refined oil stands at $2.60 per gallon; common cod oil from its recent decline sells at $150 per tun.

Fish Exports for May.

The returns for the fish exports from Newfoundland during the month of May were posted yesterday at the Board of Trade rooms. They were as follows:

From St. John's	Dry fish.	
To Brazil	20,439	quintals
To Europe	21,232	"
To Canada	3,000	"
To West Indies	4,249	"
To United Kingdom	536	"
To United States	109	"
Total	49,565	quintals
Also Seal Oil	306	tuns
Cod Oil	180	"
Cod Liver Oil	1,101	gals.
Barrels of Herring	1,928½	brls.
Seal Skins	153	"
From Outports	Dry Fish.	
To Europe	22,936	quintals
From Outports	Pickled Fish.	
To United States	3,660	quintals cod.
To United States	1,428	barrels of herring.

Britain Buys Norway's Catch.

The New York 'Sun' of recent date contains the news that the entire catch of Codfish for 1916, in Norway, has been bought by the British Government. This of course is to forstall the German buyers, of a very sustaining food. The Trade Review of St. John's says regarding this: — "From a purely business standpoint it would have been better for us if Germany had got the fish again, as, in that case. Newfoundland would have a better chance of supplying the British demand and that of her allies. Apart from this consideration it is a remarkable fact that as Great Britain and her allies want fish, that we, a part of the British Empire, have not been given an opportunity to sell a portion, at least, of our catch to them, instead of taking it all from a neutral nation. Possibly it may not be too late for our Governments and the Board of Trade to make arrangements with the Admiralty to purchase a portion of our codfish. This shows the necessity for a Newfoundland Trade Agent in London to look out for the trade interests of the Colony."

The returns of the Norwegian fishery up to June 6th has been posted at the Board of Trade. They are: —

June 6th 1916	47,000,000 codfish
June 9th 1915	61,200,000 codfish

Table of Fish Exports up to Date.

The following is the Table of Fish exports, as published at the Board of Trade Rooms, and bringing the exports for the year up to June 9th:—

Codfish, Quintals	1915.	1916.
Portugal	25,304	39,230
Spain	28,304	60,551
Italy	15,261	10,487
British West Indies	26,896	40,090
Brazil	147,370	154,140
Dominion of Canada	5,607	5,302
England	4,262	22,488
Scotland		
United States	525	4,709
Other Parts	23,925	33,064
Seal oil, Tuns		

United Kingdom	14	144
Other parts	39	1,685
Cod Oil, Tuns.		
United Kingdom	395	354
Other parts	852	1,100
Seal Skins		
United Kingdom	736	1,150
Other Parts	4,556	63,312
Mackerel & Herring, brls.	14,414	31,741
Cod Liver Oil, Tuns	55	129
Lobster Boxes	3,432	2,981
Trout, Brls.	21	81

St. Pierre.

The possibility of the French Colony of St. Pierre being annexed by Newfoundland is spoken of in official circles. This is important inasmuch as, the little group of islands off the Newfoundland coast known as St. Pierre and Miquelon is all that is left in the North Atlantic of what was once a great Colonial Dominion of France. Miquelon has a few fishermen and farmers, but no harbours, St. Pierre however, is a lively little town of 6,000 practically all of whom are French, and all are fisherfolk. Till 1888 St. Pierre was the most prosperous of towns, but in that year the passage of the "Bait Act" prevented the French from getting bait from Newfoundland which was a severe blow to the main trade and industry of the little island, nevertheless the indomitable French spirit prevailed and together with the assistance in bounties which the French Government at home has paid yearly to these fishermen, according to the size of their catch, the fishery has been carried on.

Of the £20,000 bounties voted in 'le chambre des communes' in France in 1914 for the assistance of the "grand" fisheries £15,000 was appropriated to the fishery at St. Pierre and Miquelon. The interest shown heretofore by the French home government in inducing the people to engage in this fishery, is accounted for by the fact that almost all those who engaged were members of the French Navy, and the Government always regarded this industry as a training school for the Navy, and on this account previous to the war all suggestions re the tiny colony's going to the English Government has been repelled in France.

With the advent of the war, in accordance with the command of the French minister of Marine, the crews of the great fleet of St. Pierre bankers, steam trawlers, and the Metropolitan fleet were nearly all called to serve in the Navy, and, altogether, only eighty fishing craft of all kinds fished on the banks from that port last year, while the present year's fleet will be even considerably less than this.

The idea of acquisition by Newfoundland was suggested by the recent negotiations, which have led to the relaxation for the term of the war of the so called "Bait Act", by the Newfoundland Government, in view of the shortage of fish in France, and induced by the friendly relations between the two governments, at present. Since the suspension of that prohibitive measure considerable trade has been done between St. Pierre and Newfoundland, and thus a more intimate connection has been established, and for some time past Mr. I. Bidel, agent for a large St. Pierre fish firm has taken offices in St. John's, and is doing a very large business in buying and exporting fish to St. Pierre, and France. If St. Pierre and Miquelon are handed over to Newfoundland, it will mean that one of the largest sources of fish for France will have been taken away.

A New Fishing Industry Being Established.

The Newfoundland American Packing Co., has begun the erection of its big new fish plant, at Bay Bulls, a small fishing village about twenty miles south of St. John's. The erection of the piers necessary for the plant are now well underway, and are being rushed to completion as speedily as possible. A lot of machinery for the plant has already arrived in St. John's from America. Mr. W. Ellis contractor of St. John's is constructing the plant. Mr. E. St. John Howley (a native of St. John's but for many years in the United States) will be the manager of the business when established. The enterprise is being financed by two prominent American capitalists, The Thomas Hubbard Co. of New York, and Mr. E. F. Searles a prominent Boston multimillionaire. In July or Aug. the Company expects to have the plant ready for operation. It will consist of a cold storage plant, a packing plant, an oil refinery, a plant for the manufacture of fertilizer from the fish offal. The contract for the construction of the plant was about $150,000, while altogether before the close of the present year no less than $250,000 is expected to be spent altogether on, and in connection with the plant. The company will handle cod, salmon, herring, caplin, haddock, and other fishes. The packing rooms will be a three story building 50 x 100 feet, giving a square foot capacity of 15,000. A dryer in the building will have a capacity of 200 qtls. of salt bulk cod every 36 hours. The machinery for manufacturing fertilizer, which will be done in a building 30 x 70 ft. will be purchased from the American Process Co. which will manufacture 500,000 lbs. of fish offal per day. All the fish products that the Co. will pack the present year will be put up in cans, chiefly one pound, the covers of which will be clamped on by a swift new process, the patent rights of which they have secured from the American inventor. This process eliminates the necessity of soldering, altogether.

The herring will be put up in oval cans kippered, and also with tomato sauce. The lobsters and cod tongues will be preserved in round tins. Smoked herring, salmon, and codfish will also be preserved. Orders have already been placed with the American Can Co. for 500,000 of their patent one pound tin cans. The Company has also placed an order with the Robert Gair Co. of Brooklyn, New York for some hundred thousand and various sized paper boxes, for boneless and shredded codfish. The cardboard used is scientifically treated, with parafine, and, when filled will be wrapped, and sealed in transparent paper hermetically, and free from air and water. The two piers will have an area of 25,000 feet.

The plant at its opening this summer will employ 100 persons. It will mean a good thing for the people of Bay Bulls and the locality, and will incidentally be a good advertisement for the whole country.

Newsy Briefs.

The salt imported into St. John's to date since Jan. 1st amounts to 32,937 hhds. as against 19,054 for the corresponding period last year.

Last year at this time there was a salt famine throughout the country, and resulted in the loss of thousands of quintals of fish which could not be cured. The Government anticipating the repetition of this happening again this year, owing to shortage of tonnage wert most active in seeing that such would not occur again.

Contrary to the usual custom of sharing the size of the catch, many fishermen engaging in the Labrador fishery, principally are looking to ship for the summer on the wage system; asking $40.00 per month, and $5.00 per hundred quintals.

Mr. A. E. Hickman, who conducts a large business at St. John's in the interests of the Smith Co. of Halifax was on trial last week on the charge of being involved in the schooner Stanley insurance case, Mr. Hickman was tried by a jury of his peers, who honourably acquitted him. Mr. Mickman has built up a large business in Newfoundland and is one of our most popular and go-ahead business men.

PLANS TO RETAKE CANADIAN FISHING.

Washington, May 20.

A bill prepared at the Department of Commerce and to be introduced in the House to-day by Majority leader Kitchin, is designed to make possible the recapture from Canada of a great part of the Northern Pacific fishing industry, lost by American fishermen on account of the construction of the Grand Trunk railway's extension to Prince Rupert last year, and through a subsidy granted the industry by the Canadian Government.

The measure would require that all halibut and salmon shipments reaching the United States through foreign territory be shipped in bond. Residents of Ketchikan, Alaska, have urged such legislation, claiming it will restore Ketchikan business lost to the Grand Trunk terminal town of Prince Rupert.

DEFINITION OF SARDINES.

The attention of the packers and dealers of Canadian sardines is called to the judgment given by the Chief Metropolitan Magistrate sitting at Bow Street Police Station, London, March 20th, 1914, in relation to the trade description of "sardine," which judgment held that,

"The Trade description 'Sardine' was not at the passing of the Merchandise Marks Act, 1887, a trade description lawfully and generally applied to goods of a particular class, that is to say, to any small fish suitable for packing, but that it was a trade description which was only lawfully and generally applied to one definite and particular kind of fish, viz:—the pilchard."

On appeal to the King's Bench Division of the High Court of Justice, the decision above was upheld, judgment being given July 28th, 1915.

The trade and all concerned are hereby warned that the term "Sardine" can lawfully be applied, on goods shipped to the United Kingdom, only to the immature pilchard, and that fish other than the immature pilchard exported there and described as "Sardines" will contravene the provisions of the Merchandise Marks Act of 1887.

Similar Acts have been passed by the Cape and Natal (1888), and the Transvaal (1903).

Some Remarks on the Lobster

At a recent weekly dinner of the Rotary Club of Halifax a very interesting address was delivered by Rotarian R. H. Williams, the Manager of Roberts, Simpson and Company. This company is the largest lobster exporting firm in the world. It was fitting, therefore, that Mr. Williams choose the most toothsome crustacean as the subject for his address. Mr. Williams said in part:

"200 years ago—in the days when scarlet tunics for the military began to be popular—one of the finest English regiments was known by the pet name of "lobsters" and besides having some reference to their color the added compliment of their being good fighters was implied, for as many of you are aware the lobster will continue to fight as long as he has any claws or legs to fight with and he will discard one or other of these without waiting for any wounds to be dressed. The word 'lobster' however, on this continent has degenerated. It seems to be now a synomym that is applied to a person having small brain—one that is easily trapped by very bad bait and one that jumps backward from an imaginary foe into the arms of a real enemy that is directly behind.

"I wonder how many persons in this room could state off-hand how many legs a lobster has? The truth is that after thirty years in the business I could not tell with alacrity the exact number because, as the Irishman says: 'Some of his legs are not legs.' We have been told, however, that it is a 'decapor crustacean', i.e., ten footed. The inference then is that it is ten legged, but it is never at any stage of its varied appearance clearly ten footed or ten legged. There ar other features of its anatomy that might be found of interest but I do not feel competent to speak with full authority on this subject and there are already too many persons who discuss the lobster in this way upon insufficient evidence.

"I cannot find that more than half a dozen scientists have studied the lobster to any extent, perhaps only one Canadian scientist, although Canada possesses ninety per cent of the world's supply of lobsters. Why should not the universities of the Maritime Provinces specialize on this important asset and why should not our premier university (Dalhousie) set the example?

"By the way, it was the shape of the lobster's claw, it is said, that first suggested the construction of the shoemaker's pincers, and as the two claws differ in their formation, acting between them as crushers, saws, holders and carriers, there is further food for reflection. The sentitive antennae, one set locating the presence of food or foe and the other its taste are really worth study in the same manner as a careful reflection upon the lobster's tail, suggested to Watt the idea of the flexible metal pipe. The swimmerets and the tail fan have hidden lessons for propelling bodies under water and this day of the submarine should make those possessions of the lobster well worth serious study. Perhaps some day the builder of big ships will find a solution to the proper way of building them in halves or quarters thus overcoming the strain that their giant length causes by buying and studying one of Roberts, Simpson and Company's live lobsters.

(Continued on Page 247)

THE PACIFIC FISHERIES

FIRE DESTROYS VANCOUVER FISH PLANT.

The plant of the New England Fish Company and its subsidiary, The Canadian Fishing Company, Limited, at Vancouver, B.C., was completely destroyed by fire on Sunday, May 28th. To those who have never seen the plant, this bald statement conveys very little meaning. The plant which was destroyed was built in 1905, on the waterfront of Burrard Inlet, near the foot of Gore Avenue. The wharf, and the warehouse built on it, covered a water-lot 150 feet wide by 200 feet long, the warehouse being two stories high and containing the two companies' offices. It also contained the Commissary belonging to The Canadian Fishing Company, Limited. As originally built, there were few conveniences for handling the cargoes of the fishing vessels, but the many improvements made from time to time made the plant the most up-to-date one on the Pacific Coast. Every facility which Mr. A. L. Hager could obtain was added to the plant so that at the time of its destruction a cargo of fish could be handled without the slightest delay.

In 1910 Mr. Hager found the business handicapped by the want of an ice making and cold storage plant, and the erection of such a plant was immediately commenced under the supervision of Mr. A. W. Sterrett, who afterwards became the Superintendent for the two companies. This plant was finished in 1911 on the waterfront immediately adjoining the wharf, and cost more than $200,000. One of the most noteworthy features of these two buildings was the gravity system for handling ice, both for packing fish and for putting on the fishing vessels. Ice chutes were built to run from the cold storage plant to the main building, and the arrangement was such that crushed ice could be delivered from the storage either to the fish packers on the ground floor, or direct to the vessels entirely by gravity. The ice could also be delivered to waggons to the ground floor in blocks without power.

The main plant was arranged to handle the unloading of two vessels at one time, the record for discharging a cargo being 160,000 lbs. of halibut in 6 hours. This included taking the fish from the hold of the vessel, culling out poor fish, sorting for sizes, packing into boxes with crushed ice and loading into cars for Eastern shipment. The cars were loaded on a depressed track, which brought the floor of the car level with the floor of the building.

All that is left to-day of the main wharf and warehouses are a few piles. The entire main establishment is gone. Of the cold storage plant the whole of the outside walls were badly burned. The insulation on the walls was all burned, but fortunately retarded the progress of the fire to a great extent. The roof and ceiling of the top floor was destroyed, and the building flooded with water, destroying the insulation and damaging the contents of the rooms. The machinery was on the side of the building away from the fire and was saved harmless.

The Commissary was heavily stocked with every kind of merchandise used in the fish business. Anticipating the tremendous increase in prices which has been taking place duirng the past six months, a heavy stock of all kinds of groceries, hardware, fishing supplies and general merchandise had been laid in and stored in the warehouse.

All this property was destroyed on the whim of a mere boy. On the afternoon on which the fire took place a young man named A. Craib took the notion that he would like to see a fire, and, after making a few unsuccessful attempts at other places, bethought himself of the hay warehouse owned by the Alberta Pacific Grain Company, which was situated on the waterfront adjoining the New England Fish Company's premises. He threw a lighted box of matches on a pile of hay, saw the blaze start, and then walked up to the fire hall to see the engines come out, following the fire brigade to the scene of the fire, where he helped to release some horses.

Within ten minutes of the alarm being turned in, the hay and grain warehouse and elevator was one mass of flame, and the fire quickly jumped into the Fish Company's premises. As a building of this kind is necessarily of open construction, there was a big suction from the back to the front on both floors, and the entire place was alight almost immediately. The building burned like a huge torch, the upper story going first and then the ground floor. Everything went. All the heavy metal either melted or dropped through into the Bay. The offices disappeared as did the Commissary, nothing being left of the large stock which was carried. The stock of 60 new dories was burned up, as well as about 400,000 fish hooks.

The fire also communicated from the hay warehouse to the cold storage plant, but the fire resisting nature of the walls kept the fire back until the fire department were able to concentrate their attention on it.

The losses are estimated at about $500,000, the greater part of which is covered by insurance.

Mr. Hager is now consulting with a committee of his Boston directors. This committee, after spending a few days at Vancouver, are now visiting the Prince Rupert, Ketchikan, and Seattle plants of the company, after which a final decision will be made in respect to the re-building of the Vancouver plants. In the meantime a temporary shed has been erected on the East side of the old dock, which will be used for handling the boats for the present.

PACIFIC ITEMS.

Fred Brown has been appointed master of the halibut schooner "Trapp" in place of Capt. W. H. Gillen who has resigned.

Geo. Allan, first mate of the Schooner "Emma H." crushed his right hand in the hoisting winch while taking dories aboard the schooner in Hecate Straits. The "Emma H." was obliged to put into Alert Bay where Allan was given medical attention, and sent to Vancouver.

Mr. E. S. Busby, chief inspector of Customs for Canada, is at present visiting the Pacific Coast.

Capt. Bill Parsons, resigned his position as master of the Schr. "Chief Zibassa" at the end of May. Capt. A. Jacobsen, formerly master of the "Grier Starratt," was appointed in hi splace.

Mr. A. W. Thomas of Ketchikan, Alaska, has started a sardine cannery at Port Walter on the west coast of Baranoff Island. He has taken a number of girls from Vancouver to work in his factory, and has made arrangements for putting up a heavy initial pack. The result of his experiment is being awaited with interest by the fishing industry, and if his venture is successful, there are several people who will follow him in this line of business.

The long-standing suit brought by George L. Harvey of Seattle against what he termed "The Fish Trust" was tried in Seattle last month. George L. Harvey claimed that San Juan Fishing and Packing Company, Chlopeck Fish Company, National and Independent Fisheries Company, New England Fish Company and other companies operating in the fish business in Seattle, had formed an illegal combination the object of which was to prevent him, Mr. Harvey, from carrying on business as a fish dealer in that city. After holding fire for a couple of years, the case was tried by Judge Hargreaves and a jury. After taking evidence for over one week and listening to arguments of council for several days, the Judge found that there were no grounds for the suit which Harvey brought, and dismissed the jury.

The cold storage barge "Glory of the Seas," belonging to the Glacier Fisheries Company of Seattle is now anchored at Petersburg, Alaska. The owners are purchasing both salmon and halibut for freezing, the intention being to tow the vessel back to Seattle as soon as the season is over.

The owners of the schooner "P. Doreen," of Prince Rupert have removed the old engine which was in the vessel, and have installed a new 20 h.p. Frisco Standard Engine.

With the advent of summer, passenger traffic out of Prince Rupert has increased to such an extent that Grand Trunk Railway Company have put on an extra train, and are now running four trains per week out of Prince Rupert instead of three as formerly. They are now running a train on Monday, Wednesday, Friday and Saturday.

The schr. "Knickerbocker," belonging to New England Fish Company, while proceeding from Vancouver to the Alaskan fishery grounds, lost her starboard shaft and propellor off Mary Island. She was able to reach Ketchikan after much difficulty by using her port propellor.

The Booth Fisheries Company of Seattle are now building a fish receiving and shipping plant on the Grand Trunk Wharf at Prince Rupert, adjacent to the premises of Atlin Fisheries Limited. The plant is expected to be finished about the end of June.

The latest addition to the small fleet of gasoline schooners engaged in the halibut fishing business in British Columbia, is the schr. "Nornen" of New Westminster. This boat, which was built by Mr. Ole Johnson, is a fifty-foot launch, driven by a 20 h.p. Frisco Standard engine. She will be able to carry twenty-five thousand pounds of halibut, and will deliver to Vancouver.

The dock workers employed by various fishing companies at Prince Rupert, went on strike at the beginning of June, demanding higher wages. The emergency was met by the different fish companies collecting together and helping each other to handle cargo esof fish whenever a vessel arrived. They were able, in this manner, to take care of their business until finally the strikers agreed to return to work.

Mr. H. C. Walby, travelling representative of the Canadian Fish and Cold Storage Company, Limited, has resigned his position with that concern.

The Canadian Pacific Railway Company announce that they will run three trains daily out of Vancouver to handle the extra passenger traffic, and they further announce that carloads of fresh fish will be hauled on any of these trains whenever the business offers.

The Canadian Fishing Company Limited, in pursuance of its policy of expansion, has made two more additions to its fleet of steamers. This company has purchased from the liquidator of the unfortunate British Columbian Fisheries Limited, the steamers "Imbricaria" and "Canada," but the purchase price has not been made public, although it is understood that Mr. Hager purchased these two vessels at a very low figure. The Canadian fishing Company, Limited, with its parent concern, New England Fish Company, now owns seven steamers and six gasoline schooners, all operating out of British Columbia ports. At the time of purchase, the "Canada" was tied up at Vancouver but the "Imbricaria" had been laid up at Skidegate Inlet, Queen Charlotte Islands, and this vessel was towed to Vancouver by the S.S. Kingsway." Both vessels are now tied up at the Company's dock at Vancouver, but no statement has been made as to when these vessels will be put into commission owing to the great scarcity of experienced fishermen in British Columbia at the present time.

The Scr. "Tuladi" caught fire at the end of May owing to a back-fire from the gasoline engine. The fire was put out quickly, and the damage done was small.

The ship "W. H. Smith," which was converted into a cold storage barge in 1911 by the Weiding and Independent Fisheries, has been re-converted into a sailing ship, and is now in the lumber carrying business.

PRINCE RUPERT NOTES.

Receipts of fish for May show Prince Rupert still maintaining a satisfactory position as to the Northern Pacific Fisheries. Within the last month two new firms have opened up fish-buying agencies, namely the Goletas Fish Co., Ltd., of Vancouver, and the Booth Fisheries.

The Goletas Fish Co., Ltd., have rented space on the Government wharf and have installed Mr. E. Davidson, well known in the Prince Rupert fish trade as local manager. The Booth Fisheries are building warehouse and fish sheds on the Grand Trunk Pacific Dock, and it is stated that the local manager will be Mr. Maddeck.

A new addition to the Rupert fishing fleet is the Ocean Foods, Ltd., boats. The P. R. T., The Pharon and the Tiderip. All auxiliaries.

The total receipts of fish for May were: Halibut, 1,804,200 lbs.; salmon, 140,700 lbs., of which amount 121,500 lbs. were used either fresh or frozen, and 12,800 mild cured for shipment. Cod, 44,400 lbs., of which 2,500 lbs. was smoked, 6,000 lbs. of crabs. Total value at average of 5c per lb., $99,765.

A question of importance to the independent fishermen of the North, namely, the licensing question as regards the salmon fishing, was brought up recently on the floor of the Provincial House by Mr. Place, M.P.P., and there is every probability of a Commission being appointed to go into the whole question in the near future. It is the sequence of considerable agitation amongst both the fishermen and the business men of the North, who have for a long time been urging a further centralization of the salmon fishing as regards the Northern waters in the North instead of in the South.

Messrs. Gosse and Millard are building a cannery on the Skeena River, and have acquired site and are erecting the necessary wharfage and buildings.

A new concern entitled the Imperial Fish Co., local manager, Mr. J. T. White, is engaged in putting up crabs and other shell fish. They have a location on the Government wharf.

SOME REMARKS ON THE LOBSTER.

(Concluded from Page 244)

"One of the crying needs of the lobster canning business to-day is the utilization of waste. Only forty pounds of lobster meat are taken out of about 200 pounds of lobsters. The remaining 160 pounds are usually thrown away as worthless. To make an average season's pack of 160,000 cases in these provinces, 32,000,000 pounds of lobsters are required annually. Less than six and one half millions of these pounds are used, the remaining twenty-five and a half million being wasted. I do not profess to claim a relative value for the surplus but there is a high food value to a considerable percentage of that wastage and there are important calcium, or phosphate and nitrogen properties in the balance that should be utilized and could no doubt be brought into use and bring money to our Dominion. One cannot help but feel that there is room for a practical reform here and it is a matter which might engage the attention of the Nova Scotia Technical College.

"Last summer I witnessed eight millions of young lobsters planted in the waters of Bedford Basin. Rotarians might as well keep away because it will probably be six years before anyone can speak with assurance of the succes or otherwise of that experiment. The lobster grows slowly. It takes six years to grow nine inches long, and it lengthens in the next few years about one inch per annum. This is what is called a scientific fact, and therefore must only be regarded as a theory, not a truth.

"A lobster usually breeds when about eight inches in length. Professor Herrick says they spawn every second year. Some claim they do so annually. However, this being leap year we will assume Herrick to be correct. However, when we come down to seriousness, we have to admit that unless conservation is treated by Canadians as a practical question, and not merely as a theory, we are robbing posterity of its rights, we are assuring ourselves of poverty and of hard times. The destruction inevitable to a world-war will not spell disaster sould we conserve as we ought the natural resources of our country. The wealth of Britain will stand the strain better if we economize our spending powers at this time. Statesmen are urging this upon us. We accept it as a theory, but very few of us are carrying it into effect.

"We calculate that the lobster industry yields an income of $4,000,000 yearly to this country. What does the industry mean as an economic asset? It means over seven hundred factories valued at over half a million dollars. It means one and a half million traps with rope and fittings valued at an equal number of dollars. It means a large number of steam, gasoline or sail boats, a considerable part of which are not used for any other purpose. It means also a large number of special salaried inspectors and preventive officers, costing the country a large sum of money. Lumbermen, hardware, coal and oil merchants and inspectors receive a living from this source, and I do not begrudge it to them. All these expenses together, however, and it will be found that the lobster business is being carried on to-day in an expensive way. There is a wastage.

"Competition is the life of trade, but excessive competition means that another trade is being supported at the expense of your own. Modern business requires economy. Modern methods mean progress. Poor factories, poor fishing material and poor officers constitute false economy. The lobster trade is handicapped because of an erratic notion that any scheme which lessens the number of factories, gear, or officials is a restraint of trade. Let us have fewer factories better equipped. Fewer boats and less gear if modernized and a smaller number of officials, if more efficient, would improve external as well as internal conditions of this trade to the advantage of the country. The political tendency of the lobster forms one of the great est drawbacks that has to be contended against. There are reforms needed and restrictions must prevail against a trade that requires conservation. The lobster business, in common with the fish trade of Canada, is too important to be merely classified as a branch of the Department of Naval Service. Let the navy be a political question, if you will, but let fish be a practical question. Let us take the lobster out of politics."

THE CANNED LOBSTER TRADE

There has been an unusual amount of discussion of late respecting the immediate future of the lobster industry in Canada. This trade is particularly important to our Maritime Provinces where a large number of families obtain the major portion of their livelihood from the industry. The legal open season for lobsters from the American boundary to the Strait of Canso begins on April first. The season for Cape Breton Island opens on April 15th, and in the Gulf of St. Lawrence districts on April 20th. Owing to drift ice and weather conditions, operations generally begin later in most of the distrist than the legal date of opening. This fact has been hailed by some observers as a boon to conservation. Others go even so far as to say that the industry should be shut down for a while to give the crustacean a chance to multiply. The war has, of course, affected the industry in a somewhat unlooked for manner. Thus our readers will be interested in an interview the CANADIAN FISHERMAN had the other day with Mr. R. H. Williams of Halifax, a recognized authority on the lobster industry.

"Would you regard the lobster season as a favorable one, Mr. Williams?"

"Do you know," said he, "when the question is asked as to whether the lobster season has been favourable or not and when I read a statement on the subject it invariably brings to mind that popular rhyme of our school days which described how

'Six wise men of Hindustan,
For learning much inclined,
Went out to see the elephant,
Tho' all of them were blind.'

One happened to fall against its side and declared it like a wall; another grasped its trunk and described it like a snake; another put his arms around the legs and said it was a tree, and so on. Thus, according to the various districts over this large fishing area your question could be answered in a dozen different ways, and you could exclaim at the end that

'Each was partly in the right
And all were in the wrong.'

"The lobster fishermen west of Halifax obtained a large pack during the winter season, but a small one in the spring, and if combined, the two will make a total pack equal to that of most recent seasons. East of Halifax the catch has been light because of unfavorable weather. The quantities sent forward alive have been heavy and this leaves the reported pack lighter than usual. In Cape Breton the drift ice interfered with operations until late in the season, but the catches recently have been very good and an average pack all round is expected, while there are portions of the north western coast of that island where the lobsters have been especially plentiful and their packs there to date are ahead of last season. Fishermen operating on the north shore of Nova Scotia had a period of plenty followed by another of scarcity, but the pack obtained is equal to an average. The northern part of New Brunswick has already secured a large pack much above the average season, but the supply has now fallen off and some packers will likely close their factories before the end of the legal season. Operations in Prince Edward Island have been hampered by the lateness of the ice and a scarcity of bait, but fishermen there are now doing well. The late-season sections of Prince Edward Island and New Brunswick, where the season opened on the 25th of May have done much better to date than they did during 1914 or 1915; still it is too early to speak of the probable pack there. The Magdalen Islands are getting large catches and have more to pack at present than they can secure cans for.

"If all these conflicting conditions are combined then it will be found that the total pack will be a normal one, but if you consider one section or another, and sub-divide it into periods then it is possible to claim a larger pack or a smaller catch according to whatever you desire to prove, and from time to time one can see statistics made upon this basis that are hard to refute and still more difficult to believe."

"Would you favor an extension of the fishing season this year?"

"'Extensions' of the fishing season are seldom good even to the part and are invariably injurious to the whole. Even worse in their effect than a legalized extension are those extra fishing and packing days allowed at the close of a legal season varying in number according to the pressure brought to bear by certain individuals.

"The present regulations may not be acceptable to everybody, but they are based upon special enquiries made from time to time by men appointed for the purpose and are supposed to represent the views of the majority interested, blended with the wisdom of the commissioners and our law-makers. Until proven incorrect they should stand.

"Legislation for this industry is onerous and difficult, but if for political or other motives the regulations are withdrawn or merely observed in the breach the value of Special Committees and Royal Commissions is utterly destroyed. They threaten the conservation of supply, they demoralize the markets and leave us unable to judge whether the laws on our Statute books are proper or sufficient protection to the industry at large.

"A minority often has a grievance and we sympathize with them, but when, by conceding a point to these, trouble for the majority is created, then our sympathy is transferred."

"How has the war affected the canning industry in the way of increased cost of supplies, in transportation and in the supply of labor?"

"The trade has had many new difficulties to contend with since the war began. Compared with previous seasons the higher cost of lumber, twine, rope and gasoline, affects the fishermen. Tinplates and other metals, parchment and all canning materials have advanced slowly but surely to an average of 50 per cent with prospects that 'the worse is yet to come' for the packer. The exporters have their load of trouble in the scarcity of space obtainable in transatlantic steamers, increased freight and insurance rates and war risks and big fluctuations in monetary exchanges, intensified by embargo and blockade measures. Complaints as to suitable help have been heard. The lure of city life takes more of the young women away annually, and male help is scarcer because of the war. Some say that the best men and boys have enlisted and the young ones who won't enlist are often not much good even for a lobster factory. Still with the 'Pollyanna' spirit many of us find much yet for which we can be glad and thankful.'

"What are the fishermen being paid?"

"It is unsafe to name a figure in any general review of the business because of the different ways in which lobsters are secured from fishermen: some by count, others by weight, some with various culls as to measurement and others again upon rental terms for the gear or varying according to the totals landed in an entire season. Some fishermen get their cash in advance, others receive payment on delivery and a few have to wait some time for their cash. The physical difference in the lobsters as well as the varying local conditions all affect values. A price mentioned while understood in one section would often be misleading to the people of another district. Thus an intelligible answer is almost impossible. In a general way one can say that the average price paid fishermen this spring was from one-half cent to one cent the pound higher than last year. The men had higher costs of gear to contend with, but up-to-date fewer losses of traps by storms have been encountered. speaking generally, more fishermen were engaged in the industry this year, thus rendering fewer lobsters for each man. Therefore the average individual returns are like no better than they were in 1915."

"What effect will the recent action taken by the French Government have on our industry?"

"The full effect on this season's business of the French embargo against canned lobsters is difficult to ascertain as yet. Much depends upon what quantity of the product will be permitted into France as having been purchased prior to the date of the decree. That country has recently consumed about 40,000 cases annually or nearly 25 per cent of an average pack. Canadian Customs statistics show exports at about 30,000 cases, but to this must be added goods that appear there as having been shipped to the United Kingdom and the United States which eventually found their way into France for consumption. Whatever proportion of our export that cannot be sent to France this year will, of course, have to be disposed of elsewhere, and that additional quantity on the remaining existing markets is likely to have its effect."

"Has danger of similar action on the part of the British Government been averted?"

"No action on the part of the British Government has been taken yet. The danger, however, is not averted. No further warning can be expected, and for similar reasons as prevent the prior advice of any changes in duty tariffs, ,etc., no notice will likely be given if the prohibition of lobster importations is decided upon. Those in the trade hope that, should any embargo be contemplated, that the announcement will be given out during the close season and before preparations for another year's work have been made so that the loss to the people in these provinces will be minimized. The trade must prepare itself to accept any decision should the exigencies of the war demand. As a feature in the transportation problem, the canned lobster business is not important because of its small volume. As an economic feature it is more important because of its high value and because it cannot be produced to advantage by either fishermen or packers at a lower level of cost than at present exists, especially when the importance of protecting or conserving a future supply must be considered. The unfortunate situation is that because of its food value it comes under the restriction of the Naval Blockade and the markets have been considerably narrowed on that account, while on account of its high cost it becomes almost—even if not quite as in France—a luxury that is undesirable in the countries of our Allies at the present juncture. These two features cause some people to advocate that the proper time has arrived to close down the lobster fishing for a period in accordance with the repeated claims of those who argue that such a course is the only practical means of 'Conservation' for the crustacean. Although the situation thus created for thousands of fishermen would be most serious, yet with the increasing cost of all supplies and the lower prices that would prevail for the canned article it merely becomes a choice of evils, and the advocate for conservation has the best of the argument. Some contend — but since it is no use to try and cross the bridge before one comes to it, one might as well avoid discussing the pros and cons."

"Have you anything to say on the vexed question of a size limit for lobsters?"

"The regulations as to the size limits of lobsters having been withdrawn because of the universal objections of fishermen and packers and because of the practical impossibility of enforcing them even at a tremendous expense the observance of these need not be commented upon. The question of a size limit is controversial both in Canada and on the American lobster grounds and a discussion on the subject just now would lead nowhere."

"Would you say that the problem of the utilization of waste product in the lobster business should be made the subject of Governmental investigation?"

"The question of Government assistance and investigation on behalf of the industry is important, but until there is more unison in the parties interested and more inclination among those in the trade to help each other and themselves, one cannot see that assistance from outside should be expected. The chief difficulty in utilizing the waste products is that the business is divided into such small dimensions and over so wide an area that the quantities of any by-products become so small as to be insignificant and really do not merit the expense of an enquiry. If the business were more centralized then the quantity of these by-products would of itself deserve and be fully worth the investigation, for the reason that much which is now wasted could, undoubtedly, be turned to good account."

SCOTCH HERRING CURING.

(Continued from Page 236)

When the fish are being discharged into the box salt should be scattered amongst them. This keeps them firm and makes it easier for the gibber to grasp them.

The use of what is known as second fishery Liverpool salt is preferable in all stages of curing "Full" fish. Trapani or Ivica salt may be used, however, for the purpose of salting the tiers of fish as they are packed in the barrels. Second fishery Liverpol salt is now being imported into Halifax. In finally filling up the barrels for market, the top tier should be so high as to be quite flush with the ends of the staves, and when the head is being put in, the cooper should stand on top of it and press it into the croze, so that when the barrel is opened in the presence of a buyer the top ties may be perfectly smooth and firm.

Before shipping a description of the kind of fish in the barrel should be neatly stencilled on the head, such as "Large Full," "Full," "Medium, Full." In the event of the fish having been inspected and branded, these designations will, of course, appear upon the crown brand and stencil.

Herrings from Scotland usually enter the United States without having the weight marked on the barrel; it is, therefore, not considered necessary to mark the weight on Canadian Scotch-cured herring.

It should be clearly understood by curers with respect to Spring herring, that while the best of these taken before spawning, may be cured for this trade, they will have to be sold for considerably less than the summer and fall fish.

The description contained in the Fish Inspection Act at page 22, deals entirely with the curing of fish that are full of milt or roe, and the foregoing observations bear chiefly on "Full" fish curing.

There is a class of herring, however, to be found on certain parts of our coasts in the early summer known to the trade as "Matjes," that is an absolutely fat herring of medium size without any roe or milt in it.

This class of fish, when properly handled and cured, brings higher prices than any other class of cured herring.

The demand and consumption, however, are limited largely to the summer time.

The method of curing "Matjes" is different from that of curing "Fulls." "Matjes" must be mildly cured in such a way that they will remain soft and at the same time keep good for months.

In Scotland, "Matjes" have never been officially inspected and branded as "Fulls" have been. The authorities did not consider it wise to brand or guarantee those lightly cured fish owing to the much greater chance of their going wrong before reaching market than the warder cured "Full" fish. For the same reason, this Department has not included "Matjes" in its inspection and branding scheme.

Instruction is, of course, available to any who may secure such fish and decide to cure them.

The process of curing and preparing "Matjes" for market is as follows:

Gibbing.—In gibbing "Matjes" the gills and everything that is in the belly of the fish must be taken clean out at the throat.

Grading.—Two grades should be made, namely: Large and Medium. "Large Matjes" should consist of fat herring measuring 10½ to 12 inches from the point of the head to the tip of the tail. "Medium Matjes" should consist of fat herring measuring up to 10½ inches, but not less than 9½ inches in extreme length.

Rousing.—Much care should be taken in rousing "Matjes" to see that every herring comes fully in contact with the salt, which for this purpose should be second fishery Liverpool.

Mode of Packing.—This is exactly the same as that prescribed for "Full" fish.

Salting the Tiers.—Only about half the quantity of salt that is used on the tiers of "Full" fish is used on the tiers of "Matjes."

Trapani or Iviza salt should be used exclusively in salting the tiers of "Matjes."

Pickling.—Two or three hours after packing the barrels should be filled up to the top tier with clear pickle made strong enough to float a potato.

Filling Up.—"Matjes" require one filling up only to make them ready for market.

On the third day after the first packing, a bung-hole is made near the centre of the bilge of the barrel, —which of course, is standing upright,—and the pickle run off as far down as the bung-hole. This pickle is thrown away.

The top tier is then straightened up and the space in the barrel filled up with fish of the same day's curing in the manner described for the second filling up of "Full" fish. There should be very little salt used on the tiers in filling up, and none at all on the top tier.

The head is then put in and made tight, after which clear strong pickle is inserted through the bung-hole until the barrel is full.

The filling should be hard enough to require some pressure to put the head in, but not so hard as to require the cooper to stand on the head and press it in, as in the case of "Full" fish.

Matjes being thus cured lightly and not intended to be kept for a great length of time, should be shipped off to market as soon as possible after being filled up, and in any case they should always be kept in a cool place.

As Matjes depend entirely on the pickle as a preservative after they are cured, perfectly tight barrels are especially necesasry.

Scotch half-barrels are the most suitable packages in which to market Matjes.

The grade of fish should be neatly stencilled on the head of the barrel, as for example, "Large Matjes," "Medium Matjes."

There is no necessity for marking the weight on the barrel.

If any curer desires further information he is cordially invited to communicate with the Department.

(Sgd. G. J. DESBARATS,
Deputy Minister of the Naval Service.
Ottawa, April, 1916.

THE USES OF COLD STORAGE

Cold storage is playing a very important part in the present war. It has enabled our Government to provide a plentiful supply of wholesome meat for the men in training, the troops in the field, and the men of the Grand Fleet. France and Russia have had bitterly to regret not having developed cold storage to a greater extent before the war. Both of them have been doing their utmost to make up for a past failure in that direction. Apart from the question of feeding the troops, cold storage has brought to the table of enormous numbers of British families a wholesale meat diet that was previously not within their means except in times of very good trade. By the aid of cold storage, sheep and oxen, fed upon the abundant pastures of New Zealand, Australia, and South America, are delivered to our tables at a comparatively low price and in such a form that few are able to distinguish the meat obtained from them from the home-grown produce.

The abundant supply of fish to which we are accustomed in ordinary times is due almost entirely to one form of cold storage. The fish is caught by steamers specially fitted up to carry very large quantities, and as the breeding-grounds in the North Sea have been largely depleted by the incessant fishing that has gone on for so many years, the fishing fleets now go as far afield as Iceland, the White Sea, and the coast of Morocco. These long voyages are made possible by what is practically a form of cold storage. Each trawler or drifter carries a large quantity of ice crushed to a convenient size, and as the fish are caught they are thrown into the hold with layers of ice and salt between the layers of fish. It has been rumored since the war has raised the prices of fish and of meat that salmon, which is so plentiful in Canada, is to be sent over here in a frozen condition. It is estimated that it can be done at a price that will enable even poor families to consume it.

Considerable care is required in dealing with fish that is to make long journeys. Some years ago the Medical Officer of Health at Aberdeen made a very careful investigation of the question. He found that the proper way to handle fish in cold storage was to allow rigor mortis to set in, and then to chill the fish. If that course is adopted, the fish will keep for a considerable time. The method employed in steam trawlers approaches very closely to it, and for expensive fish special cold-storage chambers are provided, in which this method can be carried out exactly. If the fish is chilled before rigor mortis sets in, or if the rigor is allowed to relax, the fish will not keep so long. A method that is largely employed in America is to freeze the fish, and then to dip it in ice-cold water so as to form a crust of ice on the outside when it is taken out of the water.

Cold Storage.

As we know, immediately life is extinct another life begins. Probably it would be more correct to say that when what we know as life ceases, the bacteria which form the other life obtain the mastery. What we know as putrefaction which attacks every form of produce that is suitable for food is really the multiplication of the bacteria that are formed out of what was the living produce. The bacteria multiply more quickly the higher the temperature of their host—the produce they are converting into something not fit for food. Conversely, if the temperature of the produce is reduced sufficiently the bacteria are prevented from multiplying, and the nutritious qualities of the produce are preserved.

Refrigeration is applied to all produce in two forms. Some produce may be frozen as hard as you like, and no harm is done; on the other hand, some produce—the fruits in particular—must not be frozen or their nutriment will be largely destroyed. Some produce, again, notably beef, may be either frozen or chilled. Chilled beef commands a higher price than frozen beef because if the chilling has been properly carried out and the proper temperature maintained during the whole of the voyage, the meat should be in a better condition than after being frozen. It will be remembered that water expands in freezing; some of us know it to our cost when our water pipes leak when a thaw sets in. The expansion of the water in the pipes cracks them, and when the thaw sets in the water leaks out through the crack. Nearly all fluids, including the juices of meat, fruits, etc., expand also when freezing, and consequently the cells of which all nutritive produce is composed are crushed when the produce is frozen; and when it is thawed the nutritive juices are apt to run out, and leave the produce in not as good a condition as it should be. In the case of fruits freezing is fatal. With meat, however, it has been shown that if the freezing and (more particularly) the thawing are carried out carefully—that is to say, if both are done gradually so that the fibres of the meat cells have time to accommodate themselves to the new conditions—the meat is practically as good after freezing as after chilling.

Cold Storage in Town and Country.

Every large town has now at least one cold store, many have three or four, particularly seaport towns such as Bristol and Liverpool, where overseas goods enter. In addition, it has become very common for butchers, fishmongers, poulterers, and the large general provision stores, to have cold chambers as part of their equipment. The large hotels in London and other big towns have all their cold stores, and the principle of cold storage in some of the later hotels is extended to the dining and coffee rooms. In some cases small cabinets are placed in the rooms cooled by means of ice; in other branches from the refrigerating plant are carried right into the rooms and keep lockers especially arranged for the purpose at a low temperature throughout the years. Cold storage will not make bad produce good. It will not turn back the process of putrefaction, but will only arrest it for the time. Further, it is of great importance that no produce of any kind in which bacterial action has begun should be placed in a cold store with other produce. Painful experience acquired in the usual expensive manner has taught the growers of fruits not only that certain kinds will keep better in cold stores than others, but also that the fruit must be picked in a certain condition. It must not be bruised, and, if possible, any bruised specimen should be rejected. Even in cold store bacterial action represented by a bruise is communicated to the other fruit in the same store. It will be understood also that the produce having a pronounced smell —lemons, for example—must not be placed in a cold store with produce that easily accepts odours, and retains the flavour given by them.

The cold storage problem is reall ytwofold. The rooms in which the produce is to be held at a low temperature are insulated so as to prevent the passage of heat into them; that is the first part of the problem. The second part of the problem is to deal with the heat which does leak through, and some always does in spite of the most perfect insulation. This unwanted heat has to be driven out by means of refrigerating plant. Any room can be made into a cold store by insulating it, and for private families, any box can be made into a cold store in the same manner. There are a number of substances known as thermal insulators, and they are applied to prevent the passage of heat through them, in exactly the same manner as the electrical insulators are applied to prevent electricity leaking out. There is, of course, one very important distinction between the two; the conductors in which electric currents are flowing and to which electrical insulating materials are applied, are very small indeed; even the large cables used for distributing currents for light and power over large cities are small, and the insulating envelopes are small.

The insulating envelope of a cold store is necessarily large. It has to line the whole of the inside of the room or building. The method employed up to quite recently, and still employed to a certaint extent, is as follows: An inner wall of matchboarding is built up on the inside of the brick or stone, or other wall of the room. On the inside of the matchboarding a layer of specially prepared waterproof paper is laid. It is of the utmost importance that moisture shall be prevented from reaching the insulating material; and as is well known, the outer walls of all buildings hold moisture in their pores. A few inches from the lining of matchboarding—from 4in. to 9in., according to the conditions to be held inside, separated from the first by uprights, joints, &c., and tied to the matchboarding—the side facing the other matchboard lining—is also protected by waterproof paper. The space between the two walls si filled with one of the insulators named below, which should be rammed well down. The floor and ceiling are dealt in much the same manner, the floor being finished with asphalt so as to allow of its being walked on. Of the large number of possible thermal insulators, only a few have come into use. The very best thermal insulator known is silicate cotton, or slag wool as it is often called—the wool-like substance that is formed from the slag that runs out of the blast furnace by a process somewhat similar to glass-blowing. Turings from the willow blocks, from which cotton reels are formed, after being exposed to heat so as to drive off all the bases they carry and the moisture and other substances held in them, also form a very good insulator.

Cork is coming rapidly to the front, and is displacing the other two. It is sometimes used broken up into very small pieces, but the modern tendency is to form it into slabs. Dry sawdust, fossil meal, wood shavings, wool, and a number of other substances, can be employed in place of the slag wool. One property which all thermal insulators possess is that they have an enormous number very minute air spaces in them. Cork consists of a number of minute cells; slag wool forms a number of minute air spaces by the form in which the wool curls round into balls; and the willow charcoal has minute air spaces between its flakes. The other substances named have the same properties to a smaller extent. When cork slabs are used, they are fixed directly to brick or stone walls, the walls first being treated with cement so as to prevent the passage of moisture from them to the cork slab. The cork slabs are made usually 1in. or 2 in. thick, and they can be placed one on top of the other to any thickness that may be required. It is usual to finish the inner face with cement, and sometimes to fix tiles on the inside. Ships' holds that are to carry produce are treated in exactly the same manenr. The lining, whatever it may be, is placed a certain distance from the ships' plating, and the insulating wall is built up exactly as for a cold store on shore.

The doors of cold stores everywhere are made in exactly the same manner. They are of the same depth as the walls, they are insulated in the same way as the walls, and when the door is closed, the insulating lining of the chamber should be complete. It is usual either to fit vestibules to each cold chamber, or to fit a single vestibule for several chambers to open into. The vestibule forms an air lock. Where several chambers open into one vestibule, each chamber has its own insulated door opening into the space occupied by the vestibule. The vestibule itself has also an insulated door. When a cold room is to be entered, the vestibule is entered first, and its outer door closed; then the door of the cold chamber is opened. Whatever work is required is done, the cold chamber door is closed, and the vestibule door opened and closed again as quickly as possible. The object of this arrangement is, to reduce the quantity of outside air that enters the cold chambers to the smallest limits. When care is taken only a small quantity of outside air enters the vestibule —a volume equal to that occupied by the vestibule at the most, and this passes into the cold store.

It has been mentioned that the office of the insulating envelope is to prevent the leaking of heat into the cold chamber, and that though the leakage could not be prevented entirely, it could be reduced to a very low figure. There is an economic law governing the amount of money that should be spent upon the insulation of cold stores. The limit is reached when the interest on the amount spent on the insulation, plus the cost of maintaining the insulation, equals the cost of pumping the heat out of the cold store. If a large amount is spent upon the insulation, the interest will of pumping the heat out will be too high.

The Refrigerating Plant.

The working of all refrigerating plant is due to the fact that certain substance—e.g., ammonia, carbonic acid, and sulphurous acid, very readily assume either the gaseous or liquid condition. When passing from the liquid to the gaseous condition, they absorb heat, which is taken from their surroundings, and hence the cooling effect. After they have done their work by cooling the store, by making ice, etc., they are caused to reassume the liquid condition, and begin their round again. Ether has been used to a certain extent as a freezing agent, principally in India, and compressed air is also employed. Compressed air was one of the earliest agents, but its use has gradually been given up in favour of the other substances, because of the higher cost of working. The cooling effect of the re-be too high, and if a smaller amount is spent, the cost frigerant is employed in three different ways—by direct expansion as it is called, by the aid of brine which is cooled by the refrigerant, and by the aid of a current of air cooled by the refrigerant, and by the aid of a current of air cooled, either directly by the refrigerant, or by brine. When the liquid reassumes the gaseous condition, it flows through the pipes provided for the purpose. When direct expansion is employed, the pipes are in the form of a grid standing conveniently in the cold chamber. The objection to the use of direct expansion is, in the case of ammonia, that if there should be any leak of the gas the produce may be damaged. This does not apply with carbonic acid. Direct expansion does not allow of as complete control of the temperature as with either brine or cold air. When brine cooling is employed the pipes in which the refrigerant expands from a coil inside a tank, through which brine is kept circulating by means of a pump.

The brine passes from the expansion tank, as it is called, through a grid of pipes in the cold chamber, and is kept circulating through those pipes and through the tank. In passing through the pipes in the cold chamber it abstracts heat from the air of the chamber, its temperature being raised, and it gives up the heat to the expansion coils when it reaches the expansion tank. With cold air cooling, the air is sometimes caused to flow over a grid of pipes in which carbonic acid gas is flowing, expanding from the liquid to the gaseous condition. Ducts provided for the purpose lead the air from the grid to the cold chamber, and other ducts opening from another part of the chamber lead the air back over the grid. Shutters in the ducts enable the rate of flow of air to be controlled, and with it the rate of cooling in the chamber. The air is cooled also by being caused to pass over a battery of galvanised iron plates over which cold brine is flowing, the brine being cooled by passing through the expansion tank as explained before. The cooling of the air has a double effect; it renders it able to abstract heat from the air of the cold chamber through which it passes, and thence from the produce, and it also obliges the air to part with any moisture that it has picked up anywhere. The ability of air to carry moisture increases very rapidly as its temperature rises, and decreases in the same ratio as its temperature falls. A large proportion of cold stores are now run by cold dry air, the air being cooled and dried in the manner described.

As previously described, there are two methods of applying refrigeration to produce—freezing and chilling. In chilling, the temperature of the produce is not reduced to freezing point, but is maintained a few degrees above it. This is the usual practice in the case of cargoes of beef coming from the Argentine and elsewhere. The holds of the ships in which chilled meat is carried are cooled by pipes in which brine is circulating. The holds are divided into sections, each section having its own brine pipe, and an attendant is constantly watching the outflow from the pipes from all the holds, and he increases or decreases the flow of brine in each pipe according to the requirements to maintain the temperature at the required figure, 34-deg. to 35deg. Fahr. It is of far more importance to prevent freezing where meat is to be chilled than to prevent a rise of temperature above the proper figure. Freezing for a comparatively short time may do a great deal of harm, whereas keeping the produce for a fairly long time above the chilling temperature will not do much harm.

Again, there are two forms of refrigerating apparatus, known respectively as compression and absorption plant. Absorption can only be used with ammonia; compression is used with every refrigerant. In a compressor (which is practically a pump), a condenser, usually a receiver for the liquid passing from the condenser, and the expansion coils. A certain quantity of the refrigerant is fed into the system after the apparatus has been prepared to receive it, and is kept circulating round and round. Some of it is constantly being sucked into the compressor from the expansion coils; some of it is constantly compressed to a certain pressor, and forced into the condenser. The condenser consists of either a coil or grid of pipes, over which cooling water is kept circulating. It corresponds very closely to the well-known surface condenser employed with steam engines. It is necessary for the refrigerant to be compressed to a certain pressure depending upon the temperature of the cooling water available before it is forced into the condenser. Some of the refrigerant is constantly being formed into gas in the expansion pipes.

In the absorption plant, the ability of water to absorb ammonia gas is made use of. At low temperatures it will absorb comparatively large quantities, while at high temperatures its absorbing ability is very much reduced. Hence there are two chambers known as the absorber and the generator, together with some accessories. The absorber contains water which is kept at as low a temperature as possible, and it receives the gas that has done its work in the expansion coils. The generator receives the strong ammonia liquor formed in the absorber; from it the gas is forced out by the application of heat, and is delivered to the condenser in the same manner as from the compressor. The accessories are called the rectifier, the exchanger, and the ammonia pump. They are designed to deliver the ammonia gas to the condenser, free of water or any other foreign substance, to keep the ammonia liquor circulating between the absorber and the generator and to use as far as possible in the generator the heat which is liberated by the solution of the ammonia gas in the water of the absorber. Cooling water is employed in the rectifier and in other parts of the apparatus, the same water being used in the condenser. The absorption system was the earliest introduced, but there are a very much larger number of compression plants at work than of absorption plants, though the absorption system has been making a certain headway during recent years. Compression plants are available from very small apparatus suitable for small butchers' shops, up to those required for handling the enormous numbers of sheep and cattle that are being constantly brought to our shores.

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(PUBLISHERS OF THE CANADIAN FISHERMAN)

Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, AUGUST, 1916 No. 8

A NOVA SCOTIA FISHING DOCK

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LIMITED

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on all
High-Grade
Atlantic Sea
Foods

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LIMITED

ONTARIO
Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted —October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries
Of the Province of Quebec

Department of The Naval Service

Fisheries Branch

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $32,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on June 1st, 1916

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)				1 April to 15 June.
Maskinonge				15 April to 15 June.
Ounaniche				1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 & July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	
Pickerel				April 15 to May 15.
Salmon (netting)	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb. 28	Aug. 1 to April 30.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Sept. 16 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	April 1 to June 30
Sturgeon		June 1 to July 1.		June 1 to June 30.
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to April 30
Salmon Trout				Oct. 15 to Dec 1.
Whitefish				

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)	a1 Jan. to 15 June.			
Maskinonge	1 Jan. to 15 June.			
Ounaniche				
Oysters				May 1 to Aug. 31
Quahaugs				
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	
Salmon (netting)				
Salmon (angling)				
Smelts				See regulations.
Sturgeon		Oct. 16 to June 15.	Oct. 16 to June 15.	
Speckled Trout	cSept. 15 to April 30.			
Salmon Trout	gOct. 5 to Nov. 30.			
Whitefish	gOct. 5 to Nov. 30.	Sept. 15 to Nov. 19.	Sept. 15 to Dec. 15.	

a—Except in Lake Erie west of Pt. Pelee where close season is May 24 to July 15.

b—Except on leased areas, where close season is from 1 July to 31 Aug.

c—See regulations.

d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.

e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.

f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.

g—For exceptions see regulations.

i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.

For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED
TO THE COMMERCIAL FISHERIES
OF CANADA AND NEWFOUNDLAND
THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE
OF FISH PRODUCTS

F. WILLIAM WALLACE
EDITOR

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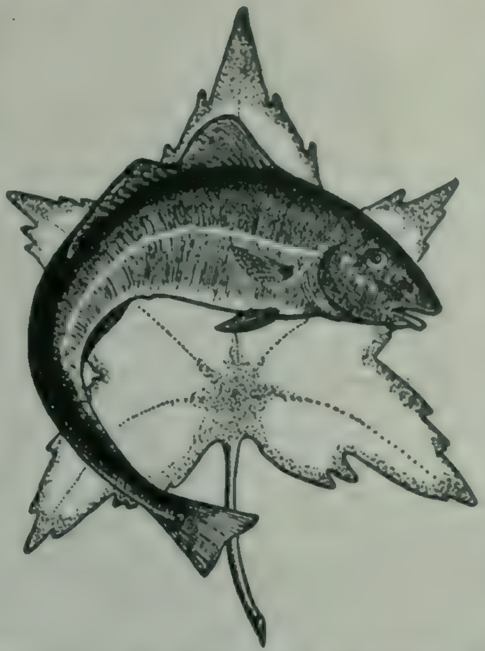

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ADVERTISING RATES ON APPLICATION

Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, AUGUST, 1916 No. 8

August Fish Day Calendar

1916			AUGUST			1916
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
		1	2	3	$\boxed{4}$	5
6	7	8	9	10	$\boxed{11}$	12
13	$\boxed{14}$	15	16	17	$\boxed{18}$	19
20	21	22	23	24	$\boxed{25}$	26
27	28	29	30	31		

ANOTHER ADVANCE IN FISH TRANSPORTATION.

The efforts of the Canadian Fisheries Association working in conjunction with the Marine and Fisheries Department has resulted in an important advance in transportation facilities for eastern shippers. After the conference between officials of the Department, the Canadian Fisheries Association and the railroad and express companies which was reported in our last issue, we are pleased to be able to make the following announcement from the Marine and Fisheries Department.

"Arrangements are being made by the Department of the Naval Service to carry out the recommendation of the Select Standing Committee of the House of Commons on Fisheries, for the inspection of shipments of fish going forward from the Atlantic coast. An inspector is being appointed who is experienced in the fish business. He will supervise the loading of fish at initial points, and will follow their movement along the railway and the condition in which they reach their destination.

The Canadian Government Railway authorities are taking up the matter of better transportation facilities in an earnest and energetic way. As it is not feasible at the present time to put on refrigerator cars on the Ocean Limited and the Maritime Express for the transportation of fresh fish, a portion of one of the large sized baggage cars is being insulated so as to give cold storage accommodation for about six thousand pounds. This car will be ready for a trip within a few weeks. In it shipments from Halifax and Mulgrave will be consolidated. If it proves the benefit to the business that is anticipated, the railway will so prepare additional cars, so that in the course of a short time a sufficient number will be available to meet requirements.

The reasons for complaint by the shippers in connection with the fast freight service have been removed. Steps have been taken to practically assure the train reaching its destination on time. Instructions have been given the officials all along the line to pay attention to the fish cars, and to see that under no conditions are they detatched from the through fast freight trains. Moreover, the trains having refrigerator cars attached will hereafter be known as "Fish Trains," so that special attention to their movement will be better assured.

Arrangements have also been made whereby the consignees can be kept posted as to the movement of the fish cars.

It is anticipated that this fast freight service will prove so satisfactory that the need and demand for a refrigerator express service will be reduced to a minimum.

As an instance of the harmony which exists between the Department and the Association, it is gratifying to note that naming of competent officers for the position of Inspector was referred to the Canadian Fisheries Association and the selection was made from the list of names submitted.

Our work as an Association for the betterment of conditions in the Fishing Industry of Canada is much on a par with the work of the Allied Forces in Europe. Advances are slow and are only made after persistent bombardments. Each concession gained from the forces which oppose us is a victory which could never have been gained if the fishing interests had not allied themselves together to fight for the common good. Like the fighters in the more sanguinary conflict, we are calling for recruits, and hope to have all those interested in the Fishing Industry of this country enrolled in our ranks. If you are not a member, why not join now?

TECHNICAL EDUCATION FOR FISHERMEN.

This is a subject we have given a great deal of space to at various times and in the Annual Report of the Commission of Conservation just issued is published a paper by Dr. Jas. W. Robertson, C.M.G., L.L.D., on the same topic. In the present issue we print a symposium of opinions from leading fish dealers in Nova Scotia on technical education in relation to the fisheries.

Almost all of the articles and opinions expressed are correct and commendable as far as they go, but there are a number of opinions and writings on the subject which only show a superficial knowledge of the Canadian fisherman and his work. It is very easy to talk on technical education for fishermen, but it is another matter to carry it out and along the lines which need attention.

One of the first things to be taken up is Navigation. The present day fishing skipper of the Atlantic coast has a haphazard way of finding his whereabouts at sea. A lot of his navigation is guess work, luck and instinct. As sailors say, it is mostly "By guess and by God." Very few skippers of fishing vessels can read a true chart—variation is a puzzle to them—and most of them use magnetic charts or charts with the magnetic compass plainly marked on them. Degrees to many are unnecessary humbugs—they lay off courses and steer only by points. Deviation is an unknown science and one is liable to find a marline spike in the binnacle box aboard any fishing vessel. The vagaries of the compass and outside magnetic influences are hazy subjects.

Taking a meridian altitude of the sun by means of a sextant or quadrant to find latitude can be done by the majority of fishing skippers, but here again the principle of the operations is not clearly understood and the calculations are done by the old time 89—48 method. Adjustments of the sextant are operations which they leave alone and the result is that accuracy in observations is mostly luck and more often away out.

They are first class sailormen in handling a vessel under sail. They are first class navigators by dead reckoning in waters they are acquainted with, but in strange waters they lose time by running in to sight the land for new departures and by jogging until daylight before entering harbors.

Fishing skippers are scarce and hard to get. Why? Simply because most fishermen have no confidence in themselves when it comes to navigating a vessel offshore. Take the young fishermen and give them a thorough grounding in Navigation and much of this hesitancy to take command would be done away with. They would be able to make harbors in thick weather with confidence instead of laying-to offshore and losing valuable time. The importance of Navigation cannot be over-estimated and one has only to point to the smart young skippers out of Lunenburg, who will take vessels anywhere—to Grand Banks, the West Indies or Europe. These men go to local Navigation schools in the winter months and are invariably ambitious to command their own craft. One has only to note the large Lunenburg fleet commanded by Lunenburg men to know this.

In Nova Scotia today, there are vessel owners willing to build schooners for fresh fishing who cannot get men to command them. Why? Because they are not sure of themselves when they get off the land and afraid of the land when they come in on it with doubtful reckoning in thick weather. Poor navigation has lost many a day's fishing and many a fishing skipper, once he drifts off a fishing berth on the Bank, will waste a whole day or more trying to locate it again. Make a good navigator out of our fisherman first, and then educate him in the technicalities of his profession.

Vitally important in the latter is the proper care and preservation of the fish when it is caught. In this, our fishermen have much to learn in dressing the fish, handling it aboard the vessel, and icing or salting it for preservation in the hold. A course could be given in this vessel work alone. Instruct the fishermen to handle fish carefully. Show them by scientific analysis how deterioration sets in through too much pitching about and forking, also careless gutting. Instruct them in the principles of refrigeration and preservation by salting. Icing and salting fish is an art in itself and particular attention should be given to proper stowage in the hold. In fresh fishing, there are some vessels which bring in fish in better condition than others through better supervision in icing. The same apples to salting.

Another important branch is famiriarizing the fisherman with the habits of fish, their migrations, the temperature of the water they prefer to live in, the bottoms they frequent, and their feed. Knowing more of the habits of the fish he is out to catch gives a fisherman distinct advantages. He will know where the fish are likely to be found. By the temperature of the water he can determine whether it is worth while setting his gear on a particular spot. By the condition and general appearance of the fish, he can tell how they are running. Knowledge of this sort makes up individuality and will tend to send fishermen further afield, to open up new fishing areas, and break up the habit of a whole fleet, following someone's lead, fishing out some particular Bank or spot.

Combined with a dip into meteorology, a knowledge of handling and repairing internal combustion engines, an idea of how fish is placed on the market, the cultivation of the habit of observing unusual occurences at sea and reporting them, a knowledge of all kinds of fishing gear and the best methods of using them, a study of baits and the most appropriate times to use certain kinds—all subjects which are of great interest—technical education of this nature will give us an intelligent and aggressive class of fishermen who will bring the industry on a high plane.

After a man has completed his course, keep him in touch with all new developments by means of bulletins and lectures. With such a scheme established, our fisheries cannot help but develop along the right lines. At any rate, the subject has been given enough publicity by now. It is time to get something established. Canada has been a fisheries tail-ender among the nations long enough and the sooner a Fisheries Technical College is started, the better for us.

SHARKS.

The presence of sharks in Northern waters of late and the numerous attacks they have made upon bathers caused quite a furore in the press. The fatalities caused by them have evolved wide spread calls for their extermination, etc., and people seem to be under the impression that sharks in the North Atlantic are unusual.

Any fisherman who has fished for a time on the grounds off the North American coast will relate plenty of shark stories. To a fisherman, they are almost as common as dog-fish, especially in the summer months. When at sea aboard fishing schooners in summer, the writer has seen dozens of them, from the small and active blue shark to the great "logy" or mud shark. The blue shark is more to be feared and I have known nervous fishermen when in the dory reach out and smash Mr. Blue Dog in the eye with an oar or a pitch-fork to chase him away from the boat. It is quite a common thing for these fish to rush at the trawl as it is being hauled in and snap a cod, halibut or other fish off the hook. The mud-sharks often devour the fish off the hooks as the trawl lays along the bottom and one often sees halibut heads coming up on the hooks—the whole body devoured by these sea tigers.

Both species of shark have a trick of rolling themselves up in the trawl gear and in their efforts to get clear, they bite the line. Numerous tubs of trawl are lost by fishermen through sharks severing the line. When they can't get clear, it means a back-breaking haul for the fishermen to bring the great brutes to the surface in order to clear their gear. The mud shark comes up like a log and hardly flips a fin even while the trawlers are cutting away his tail to get the trawl adrift, but the blue dog is a fighting proposition and he makes the spray fly. Very often the men are compelled to cut their line to get clear of him.

The latter shark is a man-eater—not by choice but from the fact that he will snap at anything that looks like food. Practically all sharks are man-eaters if they get a chance. Fishermen relate instances where they have snapped at their hands while they were reaching over the dory roller to lift a fish. I have heard where one fisherman had his hand bitten off at the wrist in this manner and I believe it quite possible.. One only has to see the way they rush for the fish on the trawl when it is being hauled in to believe that.

The shark scare along the Jersey coast is probably caused by the common blue dog who have come inshore either seeking sea food or through some temperate condition in the water. The fact that they entered a creek is not more unusual than seals, porpoises and whales being captured in similar places. Seals and whales have been caught as far from the sea as Montreal.

The Gulf Stream may have changed its course inshore; the sharks may be starving through lack of ships throwing offal overboard; they may be emigrating from tropical waters owing to the heat or seismic disturbances—these being theories advanced, but the fact remains that sharks have always been with us and all of them will eat a human being if they get the chance. In the summer time it is always well to beware of sharks when bathing in Atlantic coast resorts.

THE SEPTEMBER ISSUE.

The September issue of the CANADIAN FISHERMAN will be devoted to the interests of the retailer and consumer. An extra large edition will be run off for distribution at the Canadian National Exhibition, Toronto, from August 26th to September 11th.

FISHERIES EXHIBIT, CANADIAN NATIONAL EXHIBITION.

As in former years, there will be a Fisheries Exhibit at the Canadian National Exhibition, Toronto, from August 26th to September 11th. A Fish Restaurant, on an improved scale, will be again a feature under new management. This Restaurant is one of the best means of advertising the fish business, and last year, from 1,000 to 5,000 meals per day were served at the price of 25 cents each.

The fish composing the daily menu will be selected species from the Atlantic, Great Lakes and Pacific, and will be properly cooked by chefs who understand the culinary art of cooking fish.

The Exhibition authorities will probably have a Fisheries Day as they did last year—all of which is good publicity.

While commending the Exhibit very highly, yet we feel that the Government appropriation for the Fisheries Exhibit is too small to do anything like justice to the Fishing Industry of Canada. The Exhibit is very much of a sameness year after year and the showing of fish samples is left to two firms who have gladly gone to the trouble annually. The Exhibit should be bigger and stands representing all the fishery provinces from coast to coast should be included. A model salmon cannery should be a feature and a man employed to illustrate the operations of canning salmon. This would interest the public.

An attraction would be to have a practical Bank fisherman in one of the booths employed in rigging trawl gear. He could be dressed in the regulation oil clothes and rubber boots and could hand out cook books and explain fishing methods to enquirers. If a regulation double or single Banker's dory were included in his booth, fully equipped with a heaving stick, gob stick, shack knife, roller, hurdy-gurdy, dory jar, compass, sail and mast, gaff and oars, fog horn conch, etc., it would attract visitors to the Exhibit and cause more interest.

Enlarged photographs of the various methods of fishing should be shown in rotary Mutescope machines and the same placed around the Fisheries Section.

Other suggestions which we offer to the Department are (1) to have a Great Lakes gill-net fishing tug brought down to a wharf situated off the Exhibition Lake Promenade. She could be open for inspection and could make fake sets of her nets several times daily in the Lake in view of spectators on the Promenade. (2) A small four or six dory auxiliary Bank fishing schooner could be brought up from the Maritime Provinces, manned by a downeast fishing crew. She could also make fake sets—running her dories out and picking them up again in the regulation Bank fashion. Both these features would be unusual and cause interest which would stimulate a better appreciation of fish as a food. Another feature would be the packing of boneless codfish.

The coming Fisheries Exhibit will serve its purpose for this year, but we feel that for the show of 1917, something novel and entirely different would be welcome. The Fisheries Restaurant is all right and should be a standard feature.

FRENCH LOBSTER EMBARGO REMOVED.

The removal of the French embargo on lobsters lifts a load from the minds of Maritime Province packers who saw nothing but disaster ahead for the season's pack on hand. The rescindment of the embargo by France will, in all likelihood, forestall any contemplated embargo on canned lobster by Great Britain.

With the German and Belgian markets closed to Canadian canned lobsters, packers were hard hit, and when news of the French embargo came, the dealers were at a loss to dispose of this season's pack. The American market was only good for fresh lobster; Canadian consumption is small, and the English market though favourable and larger than formerly, offered small profits. When the French embargo went into effect, there was talk that the British Government would also bar lobsters as unnecessary luxuries.

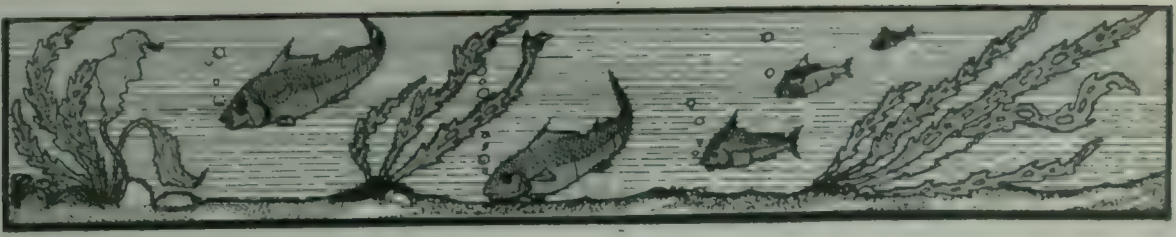
However, the news to hand removes all difficulties in disposing of the pack, and though the season is a little late, it is hoped that the packers will succeed in disposing of their stock.

PISCATORIAL PARAGRAPHS.

We regret to announce the death of Mr. William Douglas Rolston of Yarmouth, N.S. on July 17th. Mr. Rolston passed away in Boston following an operation for appendicitis. The deceased was only 34 years of age, but from boyhood was a great friend of the fishermen who frequented the port of Yarmouth, and latterly every trawler out of south-western Nova Scotia knew "Billy" and hailed him as one of themselves. Mr. Rolston was formerly in the Dominion Atlantic Railway Steamship service and latterly was a Special Preventative Officer in the Dominion Customs. A breezy, big hearted young man—he will be greatly missed.

Good work in the protection of local fisheries is being done by the Victoria Fisheries Protective Association of Victoria County, Cape Breton. The Association is composed of resident Canadians and Americans who summer in the county and was formed to protect the lake and river fish of the district from the illegal and destructive methods of fishing which was rife. Since formation, the Association has done much to stamp out illegalities and they have succeeded in having many Government Fishery Guardians appointed to carry out the laws. There are many places in Canada where similar organizations could assist the Government to protect the fisheries.

(Continued on page 275)



SUPERIORITY OF FISH AS FOOD

By. DR. EDWARD E. PRINCE, L.L.D.

This article is of special interest to all engaged in selling fish as it embodies some facts which can be used as admirable selling arguments.—Editor.

Very erroneous ideas prevail respecting the food value of fish, flesh, fowl and other table necessaries. Few people realize that fish are, in most respects, superior to any other food; even milk (which is often claimed to be a perfect food) is far from being so, and is inferior to fish in many important respects. Milk, it is well known, is indigestible to many people, even healthy people, and rich, new milk is most undesirable for invalids. It disagrees with them and causes many internal troubles. It is apt to produce gas and other digestive ailments. By removing the cream, milk, strangely enough, is made more digestive. Skimmed milk has fewer minute, floating, fatty particles, but contains the most nutritious substance, casein, and is really of far greater value according to food experts than new milk.

But the best, most digestible, and the cheapest of all foods is fish. Chemical analyses have been published which seem to show a higher value for some popular foods, but mere chemical analysis is not the best test of food. Its excellence depends upon easy mastication, reduction and emulsification and absorption, during the digestive processes.

The muscles or flesh of fishes is much looser in texture than that of meat foods. Fish muscle is, indeed, quite unlike the muscle of beef or mutton, being pale and less compact in texture, while the fibres are not enclosed in strong sheaths, and are thus more easily masticated, reduced and absorbed, and more readily utilized in the human system than almost any other food. The fact that fish go bad quickly, that they more readily decompose than other foods, is due to the very fact stated, that they are very loose in texture and while easy of digestion, they are readily attacked by the bacteria of putrefaction. Tissues that easily putrefy, or succumb to the attacks of bacteria, are also easily reduced by the digestive juices.

Fish are easily masticated, dissolved in the stomach, and absorbed into the blood and appropriated by the human body generally. It is necessary that they should be fresh, and they should be kept cold, but it requires no argument in view of the facts just stated, to prove that a more acceptable food cannot be found than fish. It is nutritious for the strong and it is a perfect food for those who suffer from a weak digestion.

In summer a diet of eggs, milk, puddings, etc., is apt to be very heavy, but a fish diet is light, nutritious, easily digested, and the 'peptones' resulting from digested fish tissues, can sustain life better than any other foods. The human body can be sustained by these peptones, without any rich fats, and without starch or carbo-hydrates, which all tend to encourage corpulency. Analysts tell us that fish do not contain certain substances, especially 'amido-bodies' such as creatin, zanthin, etc., which are really simply stimulating elements, and not nutritious in the truest sense. Fat also is far less apparent in fish; but most valuable are the organic salts which are far richer in fish, and phosphatic salts, so valuable to the human system, are 75 per cent to 100 per cent more in fish than in flesh meat.

Fish are splendid food on other accounts, apart from their chemical, nutritious nature. There is less water in such fish as cod, salmon, etc., and more protein than in most meats, and it is the proteids which build up the tissues of the human body. Fats and starches, or carbo-hydrates, which are so lacking in fish, are merely producers of heat or energy. Proteids are changed into peptones by the acids of the stomach; and because peptones are capable of sustaining life and repairing waste tissues without any other food elements such as fats or starchy matters, they cannot be surpassed as food.

Fish may be truly called the staff of life. The famous Professor Gamgee said: "We may be deprived of starches and yet live. We may go without fats, but unless we have proteids we die." Professor Chittenden the greatest of American authorities on food, in some published food tables stated that cow's milk is composed as follows—water 87 per cent, proteids 3.3 per cent, carbo-hydrates 5.0 per cent, fat 4.0 per cent, while salts and mineral matters amount to 0.7 per cent, whereas such a fish as cod contains 50 per cent less water, 300 per cent more proteids, and about the same amount of mineral salts, so that fish seem to be far superior. Most foods contain oil and fat, water and carbo-hydrates which are all non-nitrogenous, and these are qualities which encourage corpulence in the human body, but on a fish diet, rich in nitrogenous matters, the body remains lithe, muscular, healthy and active.

Sir James Crichton Browne, the eminent British expert, seemed to regard fish as a perfect food, for it supplies the two chief requirements of the human frame; nutritive or building-up materials and energy, or force producing mattes. "It contains (to quote from his own words) what are called proteids...... ......mainly concerned in the formation of the tissues, of which the body is composed; and it contains fat, one of the main sources of energy."

At such times as the present, economy is of the greatest moment, but cheap food is not necessarily either the best or the most economical. Cheap food may be poor food, but a fish diet is not only cheap but it is sustaining, digestible, nourishing and economical.

TECHNICAL TRAINING FOR FISHERMEN

(Continued from July Issue)

"I believe in technical training for fishermen", said Mr. F. W. Bassett, Manager of the firm of F. W. Bissett & Company, Limited. "It seems to me that a policy of special education for this class of workers will be necessary before Canada will exploit intelligently her fish resources and obtain a larger hold on the fish markets of the world. I would favor the establishment of local schools at various fishing centres and for a start would recommend the holding of classes extending over two or three weeks in those centres. The more practical such a course would be the better. All frills should be cut out and the teaching should be made as individual as possible. At some of the European fishing schools the instructor is willing — indeed prefers — to throw off his coat and call his pupils by their first names. In such an atmosphere the workers feel at home. As everyone knows there is wide room for improvement in present methods of curing and packing as practised in this country. Instructors in these lines are needed, provided they are the men who really know their business. Such men would have to be paid good salaries but the results would easily justify a substantial expenditure".

"I would favor the introduction of some form of technical training among our fishermen", said Mr. R. H. Williams, Manager of Roberts, Simpson & Company, Halifax. "Of course I naturally take the lobster business view of this question. The lobster fishery in itself might not be sufficient for a season's course nor have we enough ground to hope that lobster fishermen could be induced to attend classes at a central institution. A technical college could, however, be of very valuable assistance to the lobster trade and to the fish industry in general by means of research investigations. I hardly think that at the outset the establishment of regular schools in various local fishing centers would be successful. Any scheme of this character should, I think, be carried out by a gradual process.

"I would suggest for a beginning that short practical talks should be given in fishing communities. There is certainly abundance of material for a series of informal lectures and I believe that the novelty of such a movement would assure its success at the outset while the benefits that would undoubtedly be derived from the instruction would establish the popularity of the course.

"I would suggest that any scheme of practical instruction for fishermen should include the lobster fishermen. I would say that lobstermen would be particularly interested in the life history of crustaceans. Indeed instructions in that direction applies strongly to the lobster business because of the necessity for conservation of lobsters and also because of the various Government regulations that exist. By fully informing the workers as to the reasons underlying these regulations a better observance of them might be expected. Especially would this be so when the commercial benefits can be demonstrated at the same time.

"The packing of lobsters might well be included in any course of instruction although serving packers in this particular line more than fishermen. The construction and shape of proper lobster traps and the respective uses of handlines and trawl gears should all receive attention".

"Technical training would be undoubtedly beneficial to the fishermen", said Mr. H. B. Short, Manager, Maritime Fish Corporation, Limited, Digby. "Most beneficial results would follow the introduction of a practical system. Personnally I am strongly in favor of technical research. Indeed in my opinion too much attention cannot be given to research work in the fisheries as altogether too little is really known regarding this valuable industry by those in the business. This is a matter that could well be taken up by an institution like the Nova Scotia Technical College with the brightest prospect for success.

"I am of the opinion that local schools in the principal fish centers would be attended by the younger fishermen and that the results would be satisfactory. When I speak of 'schools' I have in mind the holding of short practical courses during the dull fishing season rather than protracted sessions. Any instruction would of course have to be strongly practical and include ample demonstration.

"It believe fishermen would welcome knowledge respecing the history of fish and their habits and in my opinion the more the workers know about the life history of fish the better position they are in for the successful prosecution of their industry. I can see no reason why every branch of the fish business could not be taught successfully by a combination of theory and practice. Most assuredly our fishermen need expert instruction in catching, curing and packing of fish. They are away behind the times in all these processes".

"I believe that technical training would be of great benefit to fishermen in general", said Mr. W. B. Fitzgerald, Manager, Job Bros. & Company, Limited, Halifax. "I think there can be little doubt that classes held in the principal fish centres would be patronized by the younger and more progressive fishermen of the present day. I would certainly advocate the holding of short courses as I am convinced that the fishermen would appreciate the benefit of instruction and before long every worker within reach would attend the classes. It would be one of our greatest assets in fish values if the curing and making and drying of fish were especially looked after, and if fishermen were made to realize that one quintal well cured is equal in value to two quintals of the bad make we often handle.

"There are few of our fishermen that cannot make their own cod traps and do all their own mending. Smaller meshed appliances are purchased at the stores and all these nets are repaired by the fishermen as a part of their every-day work. In my opinion, research in connection with catching, curing, making and packing would have far-reaching effects upon the fish industry and would be of undoubted advantage to the present and future fishermen of Canada".

"I should like to see local fishing classes established", said Mr. William McMillan of Lockeport, Shelburne County. "In time these schools could perhaps be affiliated, as it were, through the Department of the Provincial Technical College and a higher course of instruction given at the central institution. The first step, however, is to establish short courses at convenient points by which expert instruction would be given in the curing and packing of fish. This I consider most important, although I think that the teaching of net making and net mending, and of all the other operations of the fishermen could also be demonstrated at these courses. I believe that it is possible to make our fish suitable for any market in the world, and that it is high time for definite steps toward that end. The fish industry will come to its own only when our fishermen are practically taught the necessary care that should be taken in both curing and packing".

"The value of technical training", said Mr. Walter Mitchell, the Manager of W. & C. H. Mitchell, Limited, Halifax, "would of course depend entirely on the nature of the education given. In my opinion instruction given by comptenent teachers, men skilled both theorically and practically, would be of decided benefit to our fishermen. The arrangement of any system is one that requires considerable thought, but it is a problem that is well worthy of careful study at the present time".

"The holding of short courses for fishermen is a most excellent idea", said Mr. H. A. Rice, Manager, A. N. Whitman & Son, Limited, Canso, Guysboro County. "If these classes could extend over two or three weeks of the slack season, I am convinced that they would be largely attended. Only a very small percentage of our fishermen could be induced to attend a central institution and the inevitable expense would be a consideration. A central technical institution could, however, be of immense assistance in research work connected with the catching, curing and packing of fish. Such an idea is in line with present day progress and must appeal to all who have the interests of the fish industry at heart. The principal feature of the instruction in the local schools should, I think, deal largely with the curing and packing of fish. These are the lines on which immediate improvements are most urgently needed. The subject of technical training of fishermen is one for candid and full discussion as it is a matter that is vital to the vigorous life of the Canadian fish industry".

"I should like to see some form of training adopted for our fishermen", said Mr. John Neville, Director of Neville Canneries, Limited, Halifax. "I think that the time is ripe for a movement in this direction and there is little doubt in my mind that a practical move would have the support of the more intelligent among our younger fish workers. The force of example comes into play here and once a workable scheme were put into execution it would not be long before the advantages to be gained by instruction would be apparent to many who would be perhaps lukewarm at the start.

"It must be remembered that the Canadian fisherman is generally most conservative. He doesn't care to try anything new — even a new net or new gear of any kind—until he is convinced that it will prove beneficial. And even at that he takes a good deal of convincing. Here is where the value of practical demonstration work comes in. Demonstrations by a practical instructor combined with advice based on these demonstrations are what is needed.

"Short courses during periods of comparative idleness would, I think, be attended satisfactorily. Future attendance would depend entirely on the kind of instruction given and that of course again depends on the type of instructor selected. Academic theorizing is not what is wanted at all, but short informal talks intensely practical and illustrative of work actually in progress. In some other fishing countries where special training is given the men are taken out in fishing craft and demonstrations carried on afloat as well as ashore.

"Fishermen should be informed as to fish life, the habits of fish, their structure, etc., as well as the best methods of catching, curing and canning fish and the management of boat and gear. Technical publications are all very well but even when embodied in bulletins the difficulty is to reach the fish people proper. The only method of instruction that would likely prove at all satisfactory at the start would be the holding of short sessions in fishing communities".

"I think that instruction in the curing and packing of fish would be invaluable to our fishermen", said Mr. C. W. Rowlings of the firm of Farquhar & Company, Limited, Halifax. "Such a course could be made most interesting to the workers by means of demonstrations and I don't think there would be much difficulty from the start in the way of attendance if the instruction were given at first in local fishing centres. Later on our Technical College could be utilized as for other industrial workers.

"I have frequently thought that we should adopt something of the form of training given to fishermen in older countries like Scotland. Everybody knows that the Scotch herring are famous the world over and that the herring industry in Scotland is one of considerable proportions. There can be little doubt that the popularity of the Scotch herring is due not so much to primal quality as to superior method of cure".

"I don't think much of demonstrations conducted ashore" said Mr. M. H. Nickerson of Clark's Harbor, Shelburne County. "A fisherman must learn how to handle a boat and steer a course. He must have a good working knowledge of tide (rips and local currents).

He must know how to set traps, bait hooks and run trawls. All this of course can be learned only by practice; theory is no good at all.

"I really cannot imagine what kind of 'school' would give the necessary technical training to a fisherman. Any practical instruction would have to be imparted by teachers secured from the ranks of fishermen who had proved their knowledge by success in the occupation.

"To my mind the best instruction on the management of boats and the rigging of gear is that given by a veteran fishing skipper. I once urged the appointment of such a man to tour the coast and teach an uniform set of lobster pots and mackerel traps. It seemed to me that only good could result from the work of a tried fisherman who would travel at periods and show the backward sections the latest devices in craft and gear, as well as point out the means of reaching the best markets. He could further teach novices not only how to run a gasoline engine but also how to make simple repairs to the same. There is no doubt room in certain sections for instruction in the curing and packing of fish, but not so much as formerly. Such teaching would have no bearing on lobsters, oysters, clams and other shell-fish. A large proportion of line and net fish is now sold fresh, either exported or used as bait. Moreover the boneless business is now well established and is booming. I cannot conceive how bookish theories in the way of life histories of fish could be useful. Such a history is assuredly one of the hardest to write. Could Macaulay have produced his great work if he had had to study men under glass?

"Careful revision of the whole field convinces one that the fisherman's technique must be practical from the start. Not even the elements can be taught in school. First of all a fisherman must know how to row a boat. Most of our fisher lads of ten years could teach all but the 'Varsity ten' and I'm not quite sure about that when it comes to useful rowing. Our fishermen here have never had an instructor, yet as a rule they have made more progress, with respect to model gear and markets, than our agrarian population to whom a helping hand is continually stretched out by local and federal governments.

"Finally, the desolating beam-trawler looms large on the horizon! Five years hence that foreign craft will hold sovereign sway in our waters. I forbear to express an opinion on the results of such an invasion, but would remark that any expenditure made on tuition of our fishermen would then be entirely thrown away."

"I am sure that technical training would benefit our fishermen" said Mr. Maurice Nickerson of Clark's Harbor, Shelburne County. To my mind, education in modern methods would increase the catch, improve the quality of cure, enlarge prices and lighten labor.

"I would say that short courses at some central point, such as our Technical College, should be beneficial. The meeting together of young men from widely scattered sections of the coast would benefit them by interchange of ideas and friendly rivalry.

"Any training of fishermen should, of course, include at least elementary navigation as well as the care and management of gasoline engines and the equipment and management of fishing boats. Actual demonstrations are necessary in such teaching and of course the more practical the training in all lines the better."

A SCHOOL OF NAVIGATION

By A. J. CAMPBELL

The system of Technical Education that they have down in Nova Scotia enables the miner, the tailor, the dressmaker, the milliner, the chemist and the bookkeeper to perfect himself in the best methods of his calling. Owing to the indefatigable efforts of the Director, Mr. F. H. Sexton, the list now includes the sailor also.

A School of Navigation was established in the Nova Scotia Technical College at Halifax in the summer of 1914. The Department of Marine and Fisheries defrays the expense of equipment and instruction, while the college provides the room, heat, light, etc. Captain James Simmons, the instructor, was selected on account of his long practical experience in all kinds of vessels. He also has acted as navigation instructor at Lunenburg. No student whom Captain Simmons has trained has failed to pass the official examination at the first sitting. The school has been kept open every day and evening of every week day except Saturday since the school was established.

Instruction is free and each student is given individual attention so that each progresses as fast as he is able to go ahead. The students are also given free of charge the use of charts, books, instruments, etc. Seamen who attend only in the evening or during shore leave can prepare themselves for any certificates without expense. The instruction naturally follows the different grades of certificates of competency and may be classified according to the class of vessel upon which the aspirant for Masters' or Mates' certificates intends to serve, whether on coasting vessels, vessels in inland waters or deep sea vessels. There is a growing appreciation of the school and a continuously increasing attendance. The graduates now number over thirty.

The following is a brief outline of the subjects taught in the various courses:

Coasting Vessels—Classes for Mates' Examination

In Seamanship the student is taught the Rule of the Road, the regulation lights, fog and distress signals; use of the lead and the log, rigging and stowing cargo; square rigged and fore and aft rigged sailing vessels; fire protection, collision bulk-heads, construction and use of marine telegraph, fitting and lowering of life-boats.

In Navigation the student is shown how to work a day's work, how to find the latitude by the meridian altitude of the sun, how to take a bearing by compass and determine the ship's position on a chart, and how to shape a course and determine the distance run from any given departure.

Classes for Masters' Examinations.

Navigation. How to work a mercator and an amplitude and find the deviation of the compass by "Time

Azimuth" tables, ocean currents, "dead reckoning," the sextant, International Code signals.

Seamanship. How to rig a sea anchor and how to handle disabled vessels, use of lead in heavy weather, mortar and rocket apparatus, jury rudders, instruction in averages, bottomry bond, charter party, bills of lading, etc.

For those students who wish to take examinations for certificates on steam or sailing vessels plying on inland waters and minor waters the subjects enumerated in the preceding paragraphs are taught more simply to prepare students according to the several requirements under the provisions of the Canada Shipping Act.

Deep Sea Vessels—Classes for Second Mates' Examinations.

Navigation. Astronomical and seafaring terms; logarithms and their use; how to find a day's work with correction for leeway deviation and variation; finding of the latitude by the meridian altitude of the sun; parallel sailing; finding course and distance between positions by Mercator's method finding time of high water at any given port; calculations to find the true amplitude of the sun, the longitude by the chronometer, true azimuth of the sun by different methods; how to determine courses and distances on a true or magnetic chart; how to find the ship's position in various ways and under different conditions; "dead reckoning," the sextant; signals; the principles of action, construction, use and care of the barometer, thermometer, hydrometer and chronometer; weights and measures; markings, signs and abbreviations on Admiralty charts and plans.

Seamanship. Rigging of steamships; steering gear; connections to engines, propeller, etc.; management of a steamship under canvas; management of a ship's boat in heavy weather; dunnaging and stowing cargoes; Rule of the Road for steamers and sailing vessels; regulation lights and sound signals; marking and use of lead and log lines; sluices and water ballast tanks, engine room telegraph, use and management of rocket apparatus.

Classes for First Mate's Certificate.

Navigation. The nautical problems required in the Canadian Rules and Regulations for the examinations for first mate; computation of time at which a given star will be on the observer's meridian and other similar determinations; general knowledge and computations respecting the stars; finding the longitude by chronometer by altitude of a star; determination of the true azimuth of a star by the Time Azimuth Tables; finding the latitude by ex-meridian altitude of the sun or a star; determination of the line of position and the true bearing of the sun and the ship's position by projection; cyclones; laying down on a chart the course to steer by compass; "dead reckoning," corrections to soundings; the log book; calculation of capacity of hold; freight and commission; life boats, life buoys, life belts.

Seamanship. Shifting of large spars, rigging sheers, and taking lower masts in or out; methods of mooring and unmooring; the anchor; management of steamships in stormy weather; rigging purchases for handling heavyweights; disposition of cargoes in stiff and tender vessels; ventilation of holds; handling explosives; effects of screw race; single and twin screws; rigging a sea anchor; keeping a disabled steamer out of the trough of a sea; turning a steamship short around; casting the deep sea lead in heavy weather.

Classes for Masters' Examination.

Navigation. Determination of latitude by the altitude of the polar star at any time or by the meridian altitude of the moon; calculation of the magnetic bearing of any object taken with the ship's head on equi-distant compass points and computation of deviation therefrom; construction of a deviation curve upon a Napier's diagram; effects of the ship's iron upon the compasses' method of determining the deviation, and compensation of the same by magnets and soft iron with the aid of Beall's compass deviascope; laws regarding the engagement, discharge and management of a crew and the proper entries to be made in the official log; prevention and checking of an outbreak of scurvy on board ship; law regarding load line marks and entries and reports to be made respecting them; invoices, charter party, bills of lading, Lloyd's agents, nature of bottomry, bills of exchange, surveys, averages, etc.; prevailing winds and currents of the globe; the trade routes; the tides.

Seamanship. Construction of jury rafts and jury rudders, suitable for screw steamships; preservation of ship's crew in event of wreck; management of steamships in heavy weather; rescue of the crew of a disabled ship; steps to be taken when a vessel is on its beam ends or disabled and on a lee shore; use of steam appliances in case of fire; economy in coal consumption; best methods of towing vessels under various conditions; placing a ship in dry dock; mode of precedure when puting into port in distress with damaged cargo and ship.

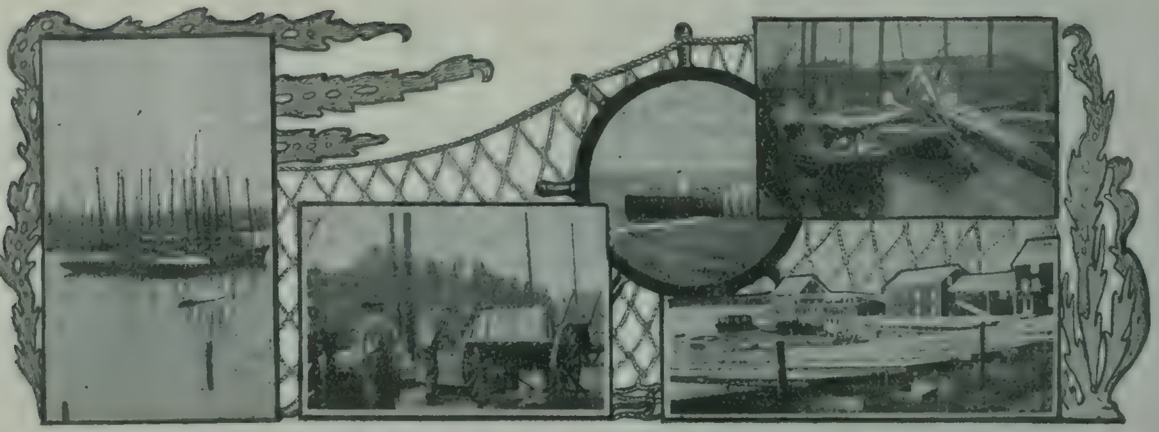
A GREAT DISCOVERER.

The Man Who Put The Salt in The Herring.

Centuries ago William Buckels, a Hollander of Bierwich, made the then astonishing discovery that salt would preserve fish and that salted fish could be packed and exported. Before his time herring had to be consumed within a few days of their capture. Buckels salted them. In 1836 William Buckels salted the first hundred of herring, and, having salted them, he packed them in barrels. This exercise of common sense resulted in a singular development of the resources of the country. The English fisheries were not as prominent 500 years ago as they are now, and Holland had for a time almost a monopoly of a market which she was able to create and to supply. Buckels had not to wait 500 years to have his claim to public gratitude recognised. Charles V. had a statue erected to the mackerel salter who became the benefactor of his country. Queen Mary of Hungary, however, paid him even greater honour. During her residence in Holland she discovered his tomb, and, seated upon it, ate a salted herring.

RECORD FISH CATCH.

Gloucester, Mass., July 11. — The largest single catch of fish ever landed at a port in this country was brought here to-day by the trawler East Hampton, according to port officials, after comparison with available records. The trawler got 400,000 pounds off Sambro Bank, near Halifax, N.S., in less than two weeks.



Let Us Have a Technical College on the Fisheries

By E. F. HART, Halifax, N.S.

In the late October, 1750, Carl Jacobs rowed up Halifax Harbor with two quintals of dry cod in the bottom of his "dinghey" and landing on the beach, near the present Bank of Montreal, he sold his fish at 20 shillings a quintal. In those days a cove swept in from Market wharf and the beach ran along past Bedford Chambers. If, like Rip Van Winkle, indulging in a drink of "strong waters," and falling asleep, he awoke to-day, how changed would be the scene. Not one familiar object would meet his gaze. The cove has disappeared, the very beach is blotted out, the city has grown up around him. Only one link would remain to bind him to the past — his dry codfish would be the same old cod, caught in the same waters, cured in the same old way. From out the mists of the past it alone remains unchanged — as in the beginning.

Let There be Improvement Also in Fish.

The wild bronco of the plains has become the race horse of to-day; the farmyard fowl has become the Leghorn; the wild apple has developed into the gravenstein; cranberries and strawberries have been improved out of all knowledge; flesh and fowl and fruit have had new life infused into their veins. Is is not high time to try man's improving touch on fish?

Dog fanciers, we are told, can grow a fancy dog to order, and get 1,000 guineas for their product. Burbank produced a potato that has trebled the productiveness of that vegetable. Thomas Lawson paid $20,000 for one carnation. Is codfish, the great Nova Scotia staple, to have no development when the land is filled with nature's miracles, and the air with airships? Man to-day exploits the earth and the air. Why not the sea also?

An old Roman emperor kept carp in fish ponds, and fattened them for his table. He was away ahead of Nova Scotia to-day in his ideas. The truth is familiarity has bred contempt and we do not value our great inheritance.

Prevent Depletion of the Fisheries.

For a thousand years the mackerel have come in June. We set out nets and take 10,000 barrels and 1,000,000 barrels go by. Where they come from and where they go to, is a mystery. As far as I know, we have never tried to find out. Our government has been hatching lobster eggs and salmon spawn. Why? Because our waters were being depleted of these fish. Now prevention is better than cure. Would it not be wise to find out how to prevent this depletion in the species that remain to us, and so protect our fisheries for future generations?

Our government has imported Jersey cows galore. They have also given us practical education in the production of butter and cheese. Danish butter commanded a higher price than ours in London, hence our product must be improved — and improved it has been, to a wonderful extent. With this improvement in mind they should surely now educate our fishermen to put up their dry fish, as against the Norwegian product, that to-day brings 75 per cent more than ours. Now butter is produced in many lands the world over. Dry cod has comparatively few sources of supply, and ours the greatest. It is, therefore, a reproach to our country if we do not lead the world in our own special line. In the one line into which we have put time and money — the canned lobster business — we are to-day reaping a rich reward in the high prices we are obtaining for our self-taught efforts.

Reduction Plants Have No Effect.

We have as long a coast line for our size as any country on the globe. Off our southern shore in summer come millions of dogfish, and we put up two reduction plants (one at Canso and one at Clark's Harbor) to exterminate these pests — exterminate them!

With a thousand reduction plants we might reduce their numbers. With two — as well try to put the Atlantic ocean into Steel's pond. I have seen enough dogfish at one time in Chedabucto Bay to keep one hundred plants running for a year. "Every dog has his day," and every dogfish its value. Some day we will wake up and find these reduction plants will pay. And it is along this path we must walk, if we expect to penetrate to the inner temple of hidden fish knowledge.

Spend a Little on Imported Fish Hooks.

Why not spend a few thousand dollars on improved fish hooks, when we pay a million dollars for Ross Rifles?

By one order-in-council the government made 1,000,000 lobster traps worthless the other day, and yet they never had instructed our fishermen in the making of one of these traps. Is this fair or just? By all means protect the lobster fishery, but first find out what protection is really required.

We begin at the wrong end. The government sends out a commission to find out from fishermen what fishery laws our fishermen want. Do we enact liquor laws that the Licensed Victuallers' Association advise? No—only such laws as promote the good of the whole country. The trade has a voice in their making, but must bow to the good of the majority. Should then the conservation of our fisheries not be the first consideration, and fishermen's ideas not give way to this paramount consideration.

I am not attempting to criticize the present law. I am criticizing the way these laws are made. The Government should know what is required. Sir Wilfrid Laurier says "Government helps those who help themselves." Education is a duty—a fundamental duty of all governments. The fisheries are suffering for want of education.

A Fisherman's Technical College.

A piscatorial institute should be erected, and Spring Garden road would be unsuitable for a site. It should be down by the sea — where could easily be determined. Practical work in producing and packing fish and fish products should be carried on. Exhaustive experiment and research should be engaged in. Classes should be instructed in technical knowledge of all these branches—demonstration of this knowledge should be given in all our fishing villages — then some fine morning one of these institute graduates would produce a quintal of codfish worth $8 as against the ordinary $4 article, and every fisherman in the settlement would wake up and learn how to make $8 fish. The value of our fisheries would be doubled. Oh, no! We would not get there in a day—or a week—or a year—but it will come. It is coming. It must come. Education has done it in other lines and will do it for us.

Difficulties—of course. Failures—Yes. Luther Burbank has difficuties and failures, but finally succeeded in growing a seedless orange. I do not anticipate that we can grow a codfish with bones all in the tail. I see great difficulty in improving the breed and crossing the varieties of all fish life. We may attain to that in the future. But in improving the product of the manufactured articles—the dried cod, the pickled fish, the canned lobster—here, is there sure and certain success awaiting the persistent and educated fisherman.

Fishing Notes from Yarmouth

(Special Correspondence).

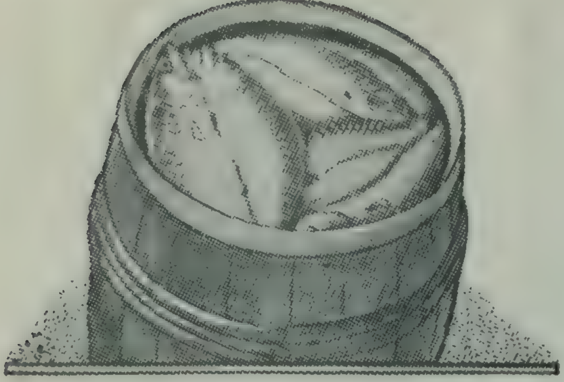
Although the year opened rather unfavorably for fishing here it is turning out much better than was expected. So many men had donned the khaki that it was thought it would be impossible to man all the schooners, but with the exception of a week or two now and then they have all been able to keep in commission, and one or two more small schooners have been added to the fleet. There are not quite so many of the smaller boats — particularly those owned in town — being used, as a walk along the water front will show, as there are probably a dozen still hauled up in winter quarters. The vessel fishermen are all doing well. The fares have been good and the prices high. Never in the history of the town have fresh fish been so high on the retail market. Right here in a fish centre where hundreds of tons are handled every day, halibut have sold to the consumer as high as 25 cents and even now are 20 cents. What is more surprising is that swordfish is the same price, and up to only three years ago no swordfish had ever been offered for sale in Yarmouth, and if caught by accident—they were never fished purposely—they were killed and thrown away—despised as are dogfish. Three years ago an experiment was made in shipping them and the same year a retail fish market tried one or two. People bought them as a novelty — now they are quite a staple although there are hundreds of people yet who have never tasted it and who do not seem to be able to make up their minds to try it. Another fish on which our fishermen have been making money for the past twelve or fifteen years has never been tried in a retail way in town, that is, the albacore (or tuna, or horse mackerel). They are shipped in large numbers and sell all the way from $4 to $8 per 100 pounds, but none of our retailers have mustered up courage enough to try one yet. The high prices of the well-known fishes will no doubt in time force people to buy some of the lesser known and despised fish. That most of them are of excellent food value is known, but people simply cannot muster up sufficient courage to depart from the beaten paths. A few days ago the manager of one of the mackerel traps brought in two or three dogfish and took them to his home. He instructed his housekeeper to have them cooked, and a splended fish dinner was prepared, to which he invited a number of friends. They all partook heartily of the fish and commented upon the excellent whiteness and flavor of the meat. When they were all through he told them what they had been eating. A few converts were made at that meal. The same gentleman was going to try goosefish — the ugliest and most repulsive looking fish that swims. Whether he did or not I do not know, but I admire his courage in even thinking of it.

The mackerel season in this vicinity is about over. There has been nothing remarkable in the run this year. The traps have not made an average catch of mackerel, but they did fairly well on salmon and pollock. The schooners Yafico, Lucy A., and Vice Renie were fitted up for seining, and were quite successful. Last year's big hauls of fish to the eastward were not duplicated this year, and, in fact, the catch has not been up to the average.

The demand for salt fish is excellent, and our local dealers can not get enough locally. They are buying quite freely in other fish centres, particularly Lunenburg, and fish is arriving by rail almost every day. The weather here has not been good for drying — there has been so much rain and dampness this season — but in this respect it is improving.

WENT AWAY WITH THE BUCKET.

A skipper took on two new hands—one a Nova Scotian without a written character, and the other a Newfoundlander possessed of abundant documentary evidence as to his honesty and uprightness. They had not been long at sea when they encountered rough weather, and the "Newfy" when crossing the deck with a bucket in his hand, was swept overboard. The "Novy" saw what had happened, and sought out the captain. "Do "you remember that "Newfy", he said, "that ye engag-"ed with a fine character?" "Yes," said the captain. "What of it?" "He's away with your bucket," was the reply.



AN EXPERT TALKS ON PICKLED FISH

Some Impressions and Advice by One Who Knows

A representative of the CANADIAN FISHERMAN had a chat the other day with Mr. Robert Gray, who was appointed last February to be Inspector of Pickled Fish, with the Maritime Provinces for territory. His present headquarters are in the Board of Trade Rooms at Halifax. Mr. Gray is a native of Lerwick, Shetland Islands. Although still a young man he is an expert in all lines connected with his trade, having received a thorough training both in the theoretical and practical part of his business. He passed the searching examination set by the well-known Fisheries Board of Scotland with the handsome mark of 95. He has had also over twenty years' practical experience with the fishing fleets of Scotland and in the curing establishments and coopering shops of that country. He has been in Maritime Canada for five years and in that time has made a thorough study of the Canadian fisheries along the Atlantic coast.

"Were your first impressions of the fishing industry here favorable?"

"Well, I must say that on arriving in this country I was disappointed with the way the fish trade was carried on. One of the first operations I saw was the heading up of a barrel, or rather what was intended for a barrel, containing 300 pounds of iced haddock. The barrel certainly looked more like the job of a hammer and saw man than of a cooper. More nails were used in making it ready for market than should be used in making a box of the same capacity. I have been connected with cooper shops for twenty-five years and I never saw larger nails than one inch used and then only six to the barrel.

"The next surprise came when I saw Canadian split herring being repacked. Two or more fish at a time were thrown carelessly into a package (I cannot call it a barrel) the fish buried in salt and the package filled with pickle made with water drawn not many yards from the outlet of a sewer. The head was then stuck in and the package shipped away. Nobody seemed to worry as to whether or not it was pickle-tight.

"My third surprise came when I saw fish being handled with a fork in the same way a farmer would handle fertilizer. Now, look here, this sounds like knocking but I cannot help that. I was merely answering your question honestly."

"You demonstrate modern methods as well as inspect?"

"I am called an inspector but owing to the lack of training of the fishermen here I am asked to instruct as well. Ignorance is particularly noticeable in the methods adopted for making barrels and in the curing of pickled fish. Just now I am engaged in giving practical demonstrations of how to make a proper barrel and when the fishing season opens I will demonstrate the Scotch curing process also."

"What are the outstanding features of the Scotch system of herring cure?"

"The Scotch method of curing herring is without doubt the best system that has yet been evolved. The fish are in well-nigh every case landed in perfect condition. Salt is applied immediately. The fish are then carefully cleaned and very particularly divided into different grades of which there may be ten during a season. The fish are then roused and packed with the utmost care into absolutely tight barrels and uniformly salted. The herring are not soaked, not even washed in water as such a process seems to destroy the natural flavor of the fish. After standing for eleven days the fish are thoroughly cured. They are then prepared in the most careful way for market and arrive at the ultimate destination looking more like a box of magnified sardines. This product is certainly very unlike the uninviting package of half salt and half fish that is too often the result of the ordinary Canadian cure."

"What reception do you get from the fishermen?"

"The fish merchants, fishermen and fish workers have almost always received me right and I must say that it is a real pleasure for me to discuss the construction of barrels and the curing of fish with them. Time and again I have been impressed by the intelligence many of the workers display through their questions."

"So you have met with no hostility?"

"Only twice and in both instances from old men. One old fisherman grew very angry when I had to inform him that he was shipping "drowned" herring. 'You needn't talk to me,' said he, 'I've been fishing and packing for over forty years and I guess I know my business.' I let him storm away and in the gentler weather that followed I asked him if he would let me demonstrate in his own yard for the benefit of himself and his neighbors. He finally yielded a grudging assent and I went to work. It took ten days to cure the fish and a few days to transport them to New York. They were immediately sold there for fifteen dollars a barrel instead of the usual price for his favorite brand of something under four dollars. You should have seen that old man's face when he received the message from New York. It was a study in varied emotions. But I assure you it set him thinking pretty hard and set his neighbors to thinking as well. I need hardly say that since then the old man and I have been the best of friends. The other old fellow has a fixed idea that there is nothing in the sea worth talking about except cod and German submarines and judging by his bluster he knows quite as much about the one as the other. The only method that will disarm hostility or arouse indifference is to go to work after an explanatory talk and practise what you have preached. The instructor must peel off his collar if he wears one, throw off his coat, and pitch right in. A careful combination of talk and action, principally action, is what is wanted."

"What is a 'drowned' herring?"

"A 'drowned' herring is a herring that has become exhausted after hours of struggle in the net. In these waters herring are as a rule left in the nets far too long. In my opinion unless moored nets are picked twice in every twenty-four hours there will always be more or less drowned herring. During last year I examined upwards of forty hauls of herring landed on that number of different days and in every case I found that from ten to fifty per cent of the fish were unfit for a good cure. I saw only one perfect catch of herring and on enquiry found that the fisherman had picked his nets in the morning, had sold the catch and then had gone cod-fishing. On returning in the evening he noticed that birds were busy round his herring nets. He investigated and was rewarded with five barrels of some of the finest herring I have seen in this country. Those fish had meshed during the day, but had they been left in the nets until the following morning it would have been impossible to make a good cured fish of them."

"It has been said that the Scotch method of cure is not generally satisfactory out here owing to climatic conditions?"

"There is nothing wrong with the climate. Occasionally during the fishing season there comes a day or two when it may be rather warm for fish of any kind to be exposed to the sun for any length of time."

"What would be gained in the price of cured fish by the general introduction of the Scotch method?"

"At the present time a gain of not less than 200 per cent and in normal times at least 100 per cent. But of course to attain success the fish must be caught, handled, packed and cured in the proper manner and shipped in the right packages. Otherwise it would be difficult to dispose of them at any price. Besides failure would entail a serious loss to the fish trade of Maritime Canada."

"Do American bait seekers take advantage of our fishermen in regard to the measure used?"

"That is rather a delicate subject to discuss. The fact is that here in the Maritime Provinces we have no standard measure for fresh herring. Consequently if a baiter or a fish merchant wishes to purchase fresh herring from a fisherman the fisherman has to fill whatever measure the purchaser produces. In some cases this may be a basket, at other times a tub, and often a barrel. To my personal knowledge many baskets that are said to have a capacity of one bushel will hold considerably more. Tubs may be any size as they are usually half-barrels of any size. As to the barrel—well, as a measure of fresh herring it may contain anything from twenty to forty Imperial gallons. However, I understand that the Department at an early date will issue a standard measure with a capacity of ten Imperial gallons which will rectify this state of affairs."

"You are impressed with the possibilities of the fish industry here?"

"Well, who wouldn't be? Why fishermen here are making what they call a good living when working for only six months out of twelve in open boats. Just think of the money that could be made through the introduction of powerful motor or steam decked vessels and all the other modern appliances. As to markets— the whole continent of North America lies behind us. Besides there are other important foreign markets awaiting the right product. The world is only beginning to realize the value of fish as a wholesome and toothsome food. There is practically no limit to the extent to which the resources of Maritime Canada's fishery fields may be developed."

AN OIL ENGINED TRAWLER

WALTER LAMBERT, A.M.Inst.N.A.

(Design by the Author).

The introduction of steam trawlers has revolutionized the fishing industry of Europe, and today they constitute the most important class of fishing vessel. The principle of capture they employ, that of catching the fish by force, was limited in application in the case of sailing vessels, both by the size of trawl gear it was possible to handle by manual labour and by the nature of the propelling agent. The use of steam power for propulsion and for working the trawl gear, however imposed no such limitation and rendered possible the exploration of distant fishing grounds on a large scale, and on a remunerative basis which would otherwise have been impracticable.

The first steam fishing boats were built in France in 1865, two small trawlers being built in that year. One or two further boats were built for French owners during the next thirty years, but their operations were greatly hampered by the opposition of the fishing community, and little progress was made in the development of the new type of boat until Great Britain, followed by Germany entered into the field.

In the latter part of the "eighties" a large number of steam fishing companies were formed to build vessels specially for the trade. These early types were generally from 80 to 90 feet long and of small displacement. Since that date trawler design has practically become standardized, and although present day boats vary in size to meet owner's several requirements, they are all similar in general arrangement, both as regards their hulls and trawling gear.

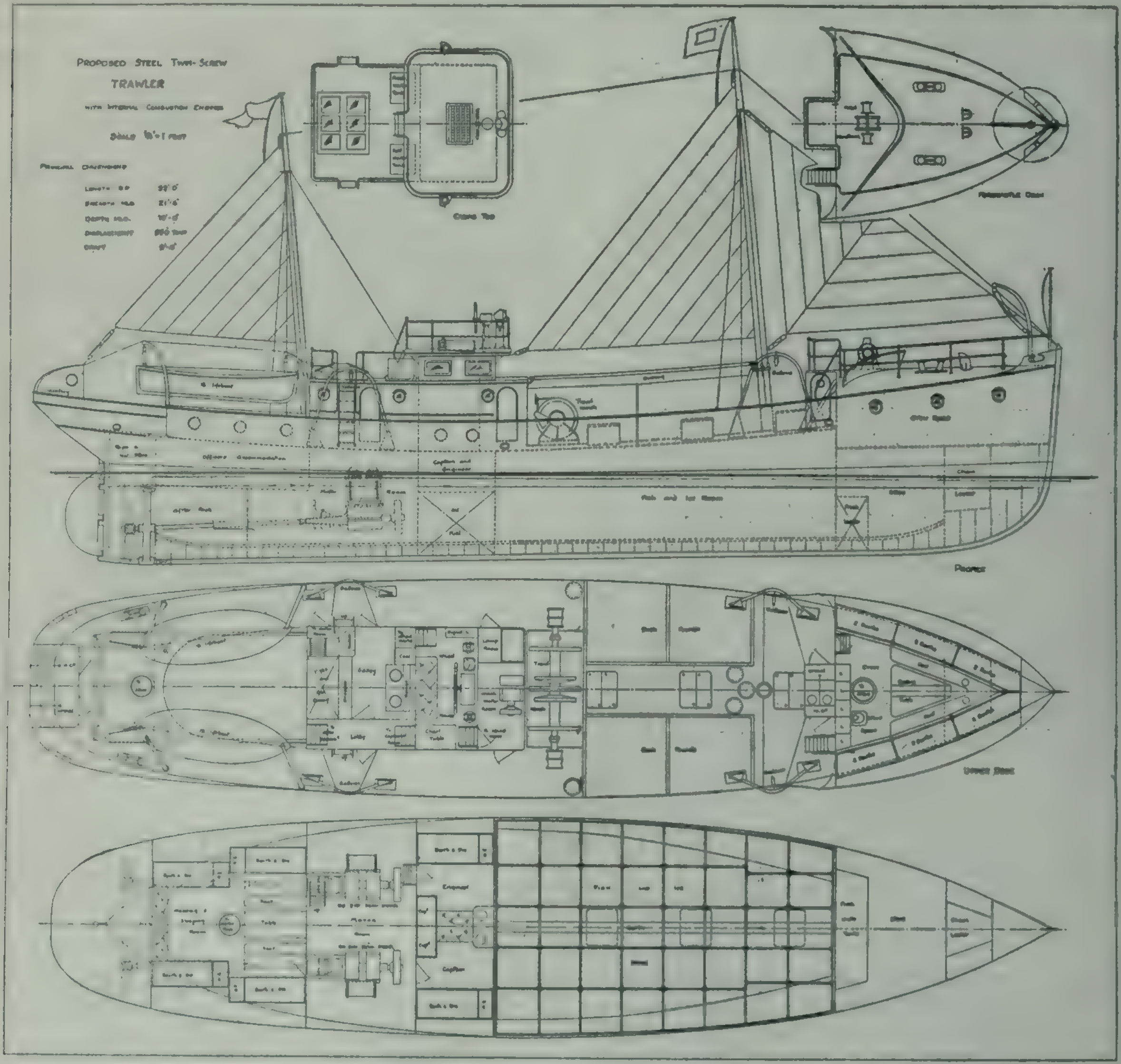
Present-day trawlers may be divided into three classes:—

1.—Small vessels, 90-110 feet long, intended for North Sea fishing.

2.—Medium sized vessels 110-130 feet long, mainly intended for North Sea fishing, but capable of extended voyages, as for example, to Iceland.

3.—Large vessels 130-170 feet long, designed for long voyages to distant fishing grounds. To this class belong the large French trawlers engaged in cod fishing on the Banks of Newfoundland, and the vessels employed in Iceland waters.

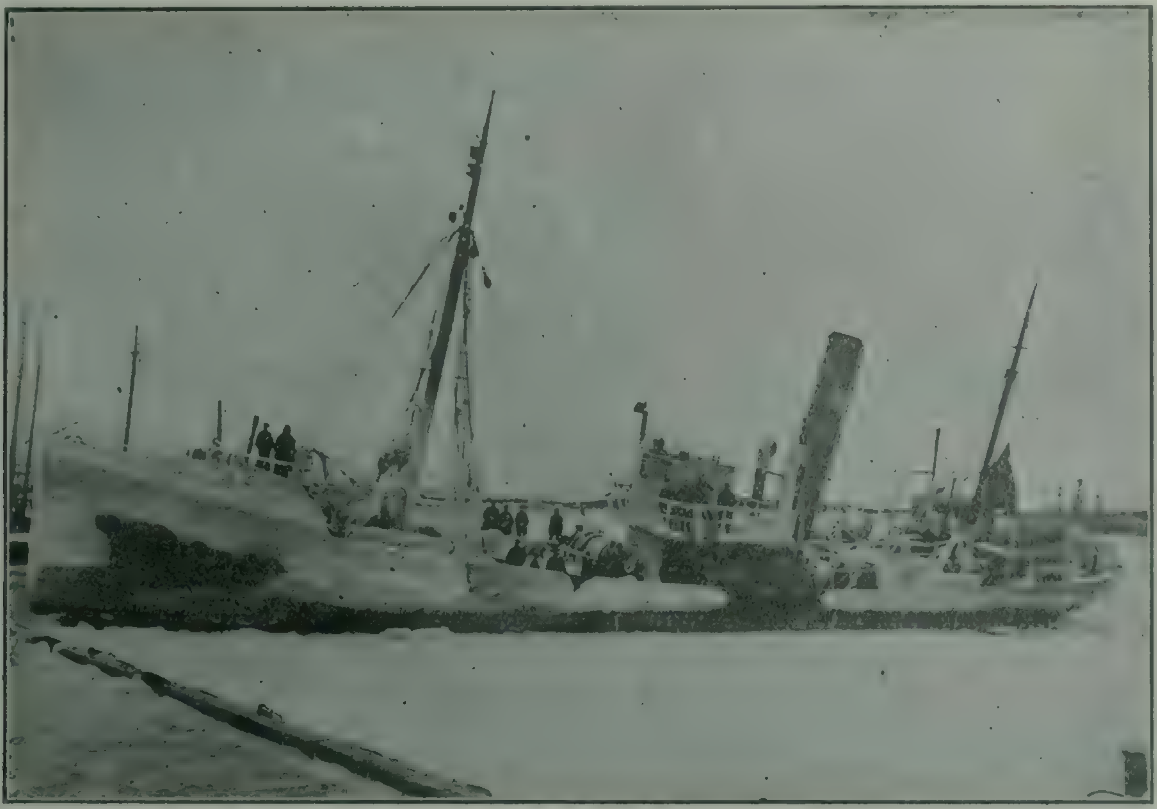
The propelling machinery varies from about 230 I.H.P. in No. 1 class to 750 I.H.P. in the larger vessels of No. 3 class. The distinguishing characteristics of the trawler is the very pronounced sheer and general air of sea-worthiness. Most of them have a short turtle deck forward which is a very desirable feature both in regard to sea-worthiness and as a protection for the crew while working at the fish in the forward well. The machinery is invariably placed aft, the coal bunker amidships and forward is the fish hold which is fitted with portable vertical dimensions and horizontal shelves of wood, on which are carried the fish, mixed with ice for preservation, the spacing of the shelves depending upon the kind of fish stored. For better preservation of the fish on long voyages the fish hold in many of the larger trawlers is insulated on the boundary surfaces by layers of compressed cork and insulating papers or silicate of cotton, while a few vessels are provided with their own refrigerating and ice-making plant. A concrete floor is usually fitted to the fish hold with a large gutter or waterway running fore and aft in the centre line. The deck pounds in the forward well are utilized for sorting the fish after the trawl net has been emptied on the deck and before placing them in the hold. The trawler being used exclusively in European waters is invariably built of steel to scantlings usually 10 to 20 per cent in excess of Lloyd's requirements for an ordinary vessel of the same size, in view of the greater stresses they undergo while trawling. Ordinary floors are adopted throughout, there being no double bottom for water ballast. The keel is of bar form and a large use of floor is common.



In examining the plan of an ordinary steam trawler one is invariably struck by the large amount of space occupied by the machinery. These vessels are sometimes used as an express service waiting on the sailing vessels on a distant fishing ground and collecting and taking their catch to market. It is therefore essential that their machinery should be powerful enough to maintain a good speed in order to get to market on schedule time with fish in good order. It is also essential to the frequent "cruising and waiting around" necessary that fuel capacity should be large enough to avoid the inconvenience of having to run to port specially to coal. It follows therefore that engines are large and fuel space corresponding.

It was with this disadvantage in mind that the accompanying design was prepared. The propelling agent in this case is the internal combustion engine on the Semi-Diesel principle running very economically on crude or heavy oil. The advantages accruing to this method of propulsion over steam are very considerable. The boiler is eliminated while the engine itself is smaller than the steam engine of same power. The fuel is of much greater calorific value bulk for bulk and can be stowed much more conveniently. The tank as shown in this design is of sufficient capacity to enable vessel to run for 12 days at full power. There is also a very considerable saving in weight and the effect of this saving in weight and space is such that hull dimensions can be reduced without impairing capacity of vessel and this hull and displacement reduction makes a reduction in power possible so that it is estimated that the adoption of this system of propulsion makes possible the saving of 30 per cent on the first cost of a vessel without curtailing its usefulness.

It is difficult to closely estimate how operating expenses compare, because as explained, a somewhat less power is necessary, but it is obvious that at least two stokers' services are eliminated and cost of coaling operations saved, while it is now no longer necessary to "bank fires," or to use fuel an instant longer than required. The omission of the boiler removes a large item against deterioration and upkeep. Oil fuel costs about 6c per gallon and this installation of 186 B.H.P. which is about equivalent to 220 I.H.P. of the steam engine will consume about 270 gallons per days of 24 hours, continuous running at a fuel cost of $16.20. Coal consumption for an equal power steam outfit at $3.00 per ton would be something like $12.00 per day under like conditions. After due consideration is given to the fact that a steam installation would mean a larger hull, bigger power and greater fuel consumption it is apparent at least that fuel cost is no greater in a Semi-Diesel installation, while the saving in the wage bill, upkeep, and other features is considerable.



Modern British Steam Trawler. (Iced Up Winter Fishing).

GOOD SEASON CERTAIN FOR B.C. FISHING AND PACKING.

The salmon run in the northern part of British Columbia has already commenced, and in the southern part will start around the first of next month. The British Columbia Fishing and Packing Company is anticipating a good season, and a good proportion of the 1916 pack has already been sold for future delivery, this being the customary method of business. England has been in the market ever since war broke out for canned salmon, and has taken a much larger quantity than usual. The British Columbia Packers' Association, the old company, earned $475,747 in 1915, against $378,471 in 1914 and $429,568 in 1913.

FEEDINC GROUNDS OF CODFISH

Newfoundland fish man decrys gurrying the ground.

The following is an interesting extract from an article by Mr. W. A. Munn in "Colonial Commerce," St. Johns, N.F. Mr. Munn agrees with the Editor of the CANADIAN FISHERMAN in the remarks we made in an editorial recently about gurrying the fishing grounds the extract is as follows:

One of my most persistent questions was: Where do these fish come from? Now, here is the best solution I got.

To understand this, you must know that codfish never live under the ice. They refuse to get under the ice, and, if they are caught in any corner by the ice, they get out of that corner as quickly as possible. A body of ice will act just like a fence does to cattle.

These codfish are in deep water, and come right up to the bank that is formed at the shore. At Channel this bank extends three miles from the shore; it gradually widens out till it is about twenty miles from the shore at Rose Blanche, and sixty miles from the shore at Burgeo, and extends right along the coast till it meets the St. Peter's Bank. The depth of water on the bank averages about one hundred to one hundred and twenty fathoms, say six to seven hundred feet. When it gets to the edge of the bank, it goes deep very quickly, and at the Halibut Hole, as they call it, three miles off Channel, it goes down a sheer precipice of three hundred fathoms, nearly two thousand feet.

The theory is that these codfish spend all the summer in the Gulf of St. Lawrence, but, when the ice forms in the fall, they all move out into deeper water. During January, February, and March, they are just waiting to get back to their breeding places in the Gulf, and are waiting in the deep water off this Bank until the ice moves out in the spring.

It is while the codfish are moving over the Bank off Rose Blanche and Channel that the local fishermen secure their voyage, but the larger banking schooners secure ever so much more by fishing right on the edge of the Bank, where the fish appear to be waiting for their opportunity to get along.

Off the Cape Breton coast you will often get haddock during winter. Sometimes during the summer haddock and ling are to be secured on the South Coast of Newfoundland, but during the winter fishery at Channel and Rose Blanche there is nothing but pure codfish to be had. About the end of March, when the ice moves out of the Gulf, or easterly winds drive it over on the Canadian coast, the fish start their annual migration and the bankers follow them. In a day or two you hear of good fishing at Codroy, the next day at St. George's, and in a few days they are to be found at Bonne Bay, where the bankers often make good hauls. This run of fish continues up to the Straits of Belle Isle and the bankers follow it. The station fishermen at Bonne Esperance and Bradore are waiting for them,and they tell me whe nthe fish arrive there you can count to the day when they will appear at Blanc Sablon and Red Bay. The fishermen don't believe that this run of fish goes past Cape Charles and Battle Harbor on the Labrador coast, but they remain there until the cold weather sets in. Then when the ice forms they return south via Straits of Belle Isle and out of the Gulf into the deep water of Rose Blanche and Channel. It is an exceedingly interesting theory, and could no doubt be confirmed by fishermen at Gaspé and other places in the Gulf of St. Lawrence.

There is another thing well worth noting, and explains the reason why one schooner can be successful and another, within a mile of her, get nothing. The codfish don't move in a solid body like an army. They migrate just like waves, and these waves are subdivided into schools. The fishermen will tell you "The fish are in spots;" and hence the fishermen's luck to meet with these schools.

In writing this article there is a conclusion that comes home very strong to me, and that is: there should be stringent regulations on this fishing ground at Rose Blanche and Channel during the three months of its operation. Practically nine-tenths of this fish is caught on a coast line of twenty miles, and on a bank that runs from three miles wide. This is a very small space for three hundred or more vessels to be fishing. Every banker will tell you that on the Great Banks, which extends for hundreds of miles, that a fishing vessel cannot remain for more than a day or two at the same spot, as the gurry from the fish caught destroy all chance of getting any good hauls. It is a great complaint amongst the small skiff owners that the large bankers catch the most of their fish at the edge of the bank and then split and clean it on the inside ground. It may be a difficult matter to make laws for outside the three-mile limit, but for the good of all concerned there should be rules and regulations governing the fishery at this most important centre. and if the suggestion that I often heard about the necessity of the s.s. Fiona being there to assist any fishermen in distress was only carried out, then the same steamer could easily see that the rules for fishing and protection of the fishing grounds was properly enforced.

It appears to me that careful investigation would prove that the fishing banks off Channel and Rose Blanche must have very productive feeding grounds for the codfish. These feeding grounds appear in spots just as they do for cattle on the land. This must be one reason why the fish congregate in such quantities in this locality, and not on the same banks to any large extent a few miles to the east, off La Poile and Burgeo.

A codfish will eat almost anything and is very partial to crabs, hoes eggs, mussels and such like shell fish. but the great source of food is anemones or sea-flowers that grow like kelp at the bottom of the sea. The fishermen's name for some of this favorite food the codfish is "Cherry Bait," "Sea Apples," "Sea Rats," etc .I don't know the scientific name for the "Cherry Bait", but wherever you find it in any quantity you will find the thick, plump fish of the finest quality. "Cherry Bait." is very much like a lemon in size and color and shape with a red top to it. It grows attached to the bottom as a mussel does, but when detached seems to be able to make a perceptible movement.

My reason for mentioning these feeding grounds of the codfish is to show the necessity of preserving such spots from offal and gurry thrown overboard by thoughtless bankers, that putrify the grounds and will quickly destroy these pastures of the codfish for years to come.

PACIFIC HALIBUT

Investigation into the Pacific Halibut Fisheries, British Columbia, by PROF. ARTHUR WILLEY, F.R.S., F.R.S.C., McGill University, Montreal.

Although it is known that the halibut—one of our most important food fishes—has already passed the zenith of its productivity in the North Atlantic and is now outclassed in industrial importance by the Pacific race, which belongs to the same species, yet the critical periods of its life and growth, its spawning, metamorphosis and migration have thus far eluded the efforts of the International Commission for the exploration of the sea and which has accomplished so much in other fields.

Begun contemporaneously with Indian tradition—the economic history of the halibut fishery, on the north-west and Pacific coast of the American continent, has culminated in the competitive industry of to-day.

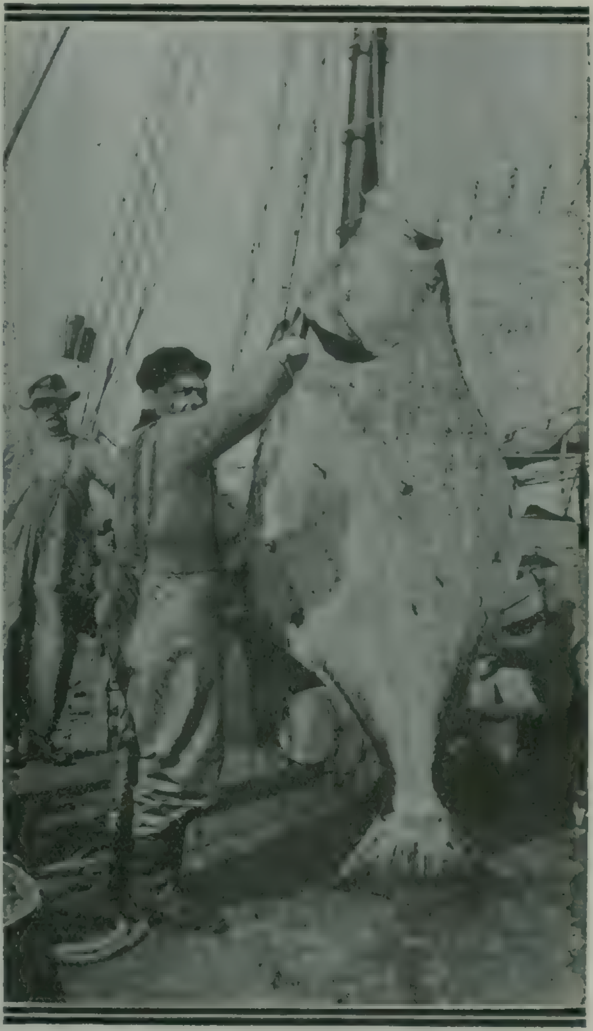
"The halibut fishery is systematically pursued by the Haida Indians; their main villages are so situated as to be within easy reach of the banks, along the open coast, on which this fish abounds.

The halibut is found in great numbers, in all suitable localities from Cape Flattery, northwards, but is perhaps nowhere finer, more abundant, or more easily caught than in the vicinity of the Queen Charlotte Islands, and while it may be taken in most of these waters, at almost any season, it is more numerous on certain Banks, at times well-known to the Indians. About Skidegate, however, it is only caught in large numbers, during a few months in the Spring and early summer. When the fish are most plentiful, the Haidas take them in large quantities, fishing with hook and line from their canoes, which are anchored by stones attached to cedar-bark ropes. They still employ either a wooden-hook armed with an iron—formerly bone—barb, or a peculiarly curved iron hook of their own manufacture, in preference to the ordinary fish hook. When the halibut are brought to the shore, they are handed over to the women who rapidly clean them, removing the larger bones, head, fins, and tail, and then cutting the flesh into long flakes. These are then hung on the poles of a wooden frame work, where without salt, either by the sun alone, or sometimes aided by a slow fire beneath the erection, they are dried and eventually packed away in boxes for future use." Dr. G. M. Dawson, Report of Progress for 1878. Geological Survey of Canada, 1878, Montreal 1880.

"In the early days of the Pacific Coast halibut fishery a large portion of the catch was taken on the south side of Dixon Entrance in Hecate Strait and between the Queen Charlotte Islands and the Islands fringing the coast of British Columbia on the east side of the Strait.

The Indians of this region who had fished in these waters from time immemorial, obtaining an ample supply for their needs, furnished the first information to the white man of the abundance of halibut adjacent to their villages, while instinctively and with good reason very reluctant to impart the information desired, constant persuasion and a promise of 50 cents per fish, which was not always paid, were inducements too great for the Indians to resist and in a very short time the white fishermen had acquired full knowledge of all the local grounds, as well as of all others, which they could locate."—Introductory notes on the Halibut Fishery, Bureau of Fisheries, Washington, 1912, by Captain H. B. Joyce, of Seattle, a well-known pioneer in the Halibut Fishery of the Pacific Coast

The discovery of fishing banks or feeding grounds where the halibut assembles at times in great schools is the reward of successful exploration, but the new location soon becomes known, and the days of full fares and easy trips are soon numbered. The real marvel is that the stock of halibut will so long stand this constant drain. And notwithstanding the enormous fecundity of food fishes, the necessity of looking ahead and of conserving an adequate stock of breeding fishes, of the various species has been engaging the attention of administrations, marine biologists and fishery experts as well as others in recent years.



A Big Fellow.

The halibut is a cold water fish with a geographic range, approximating that of the codfish, but whereas the spawning of the latter as well as of many other species that discharge pelagic floating eggs, is now well known, that of the halibut has so far baffled all attempts at solution.

The migrations of the halibut have not as yet been investigated by the laborious method of marking, liberating and capturing certain fishes, while it is moreover necessary to distinguish between feeding and spawning migrations. For although it is certain that they come in shore to feed it is not yet definitely proved that they move into deeper water to spawn.

On the coasts of Newfoundland, Anticosti, and Labrador, halibut frequently run inshore, in summer, after capelin, while in the locality of Chignik Bay, Alaska, it is not at all uncommon to find them in the salmon traps during the season, while occasionally large specimens are taken in the harbor and lagoon, close to the wharves, being attracted from offshore grounds by cannery offal.

Evidence is, however, forthcoming from various sources, that the Atlantic halibut is a summer-spawning fish, as specimens, either with the spawn already run out, or with ova and milt exuding, have been observed on the Grand Banks of Newfoundland in July and August, while in April ripe ova has been obtained in the market at Grimsby, England. These eggs were 3.07 to 3.8 m.m. in diameter, with a yolk like that of the plaice or flounder, colorless, transparent and undivided, and without an oil globule. It was moreover evident that they were of the floating kind. The fertilized eggs, however, have not yet been secured, nor any of the larval or very young stages. "On the coast of Sweden, the spawning season of the halibut is given as from June to August, while on the Atlantic shores of North America, it lasts until September." Life histories of the British marine food fishes.

On the other hand there are indications that on the Pacific Coast the halibut spawns in winter, although during the experimental trip of the Albatross in 1911, in one instance it was mentioned in the records, well developed eggs were found on July 20. But the possibility of retirement into deeper water, 150 to 200 fathoms, for the purpose of spawning, should be remembered. It is a curious fact, however, that the larger fish are found within the three mile limit, amongst the rocks in 15 to 30 fathoms and against the outer edge of the continental shelf, while the smaller fish frequent the intervening banks. Dory fishing is best adapted for the inshore zone, line-hauling for the deep sea.

"During 1913 I examined from 250 to 550 fish per month; from 28th of February to October 1st, I found no ripe fish. I took the best samples I could get each month, from the best developed fish, averaging from 40 to 50 lbs, and collected from all over the coast. And my own opinion is that these fish spawn during the fall and winter months, and from the latter end of October to the first or the middle of February." Capt. Holmes Newcombe, of the C.G.S. Malaspina, Sept. 6th, 1914.

Fishing From a Long Line Halibuter.

It is quite probable that the spawn and fry of the halibut are to be sought for in the deeper water, in other words, that they are bathypelagic and therefore will not be taken in the surface net. The newly hatched halibut larva has never been obtained. The first recorded post-larval stage was, however, described in 1893 by Dr. C. G. J. Petersen, Rep. Danish Biol. Station, IV., 1914. This specimen was 32 m.m. long; the migration of the left eye had hardly begun and the fin-rays were absent from the pectral and ventral fins.

The examination of ripe females in British and Icelandic waters has, however, led to the conclusion that the European halibut is a summer spawning fish, April to August, and a striking coincidence in point of size, between the pelagic eggs of the Argentina, a genus of deep-sea salmonoid fishes, belonging to the smelt family, and the ripe eggs of the halibut, seems to give further ground for the presumption that the latter may be bathypelagic.

"In pursuance of my enquiry, which lasted from May to September, I made trips round the Queen Charlotte Islands, to the West Coast of Vancouver Island, to Victoria, and to the Gulf of Alaska, and I was consequently able to see something of four methods of halibut fishing: by canoes, by gasoline launches, by dories from gasoline schooners, and line-hauling by steamers.

"Soon after my arrival at Departure Bay I called on Mr. W. Hamar Greenwood, managing director of the Skeena River Fisheries, Limited, Vancouver, to whom I had been recommended by Prof. A. B. Macallum, and Mr. Greenwood at once gave me permission to accompany one of the company's schooners, operating from the cold storage establishment at Haysport, on the Skeena River.

Pacific Long Line Halibuter.

"The wasteful destruction of the red-cod and their unborn fry, which is incidental to the halibut fishery, is enormous, and reacts upon the latter to this extent: That the halibut and the ling cod feed upon the red cod, while both are considered superior to the latter in the local markets, although the red cod itself is an excellent table fish, and particularly so after it has been split and salted. This species is said to be abundant from San Diego to Puget Sound. During my trip I found the males of the red cod to exceed the females in number and in size, the exact converse being true of the halibut.

"In a large inlet, lying south of the San Christoval Mountains on Moresby Island, opposite to Juan Perer Sound, we found quantities of a small crustacea, calanoid copeprods. They were rising to the surface among the kelp, one by one,, and then swimming round in spirals, clockwise, causing distinct and widening ripples at the surface. They may be regarded as forging a link in the chain of metabolism, which culminates in the life of the halibut, inasmuch as they subsist upon a vegetable diet, algae, while herrings feed upon them, octupus and rock fish upon the herring, whilst halibut prey upon octupus, rockfish, herring and launces, as well as upon crabs, prawns and rock oysters (Anomia).

"Red cod and ling cod have nothing to do with true codfish, but they are valuable food fishes. Halibut is classified for the market, according to size: chicken halibut, ranging from 20 to 29 inches in total length, from the end of the snout to the middle of the edge of the tail-fin; medium halibut, 30 to 39 inches; large halibut, 40 inches and upwards. But they never approach maturity as "chickens."

"Accepting the principle of the scale markings as a basis for estimating the age, it is a singular and useful fact which follows both from Prof. McMurrich's observations and from my own measurements, that at least up to the 12th or the 13th year, the age of the halibut is with sufficient approximation, equal numerically to one-tenth of its whole length, measured in centimetres. Thus, a fish of 28 inches (=70 centimetres), is 7 years old; another of 44 inches (=110 centimetres), is in its 11th year. The proportions vary perhaps by sex, and change as the fish grows.

"The halibut is a hardy fish, coming to the surface without showing any reaction to the change of pressure, and continuing to live for some time on deck after being roughly shaken off the hook. Once I saw one disengage itself from the hook and return rapidly towards the bottom. It would therefore not be difficult to select undamaged individuals and keep them alive in the well of a ship for experimental purposes. The provision of a suitable well, such as for many years, the Grimsby halibut boats in England have had, should form part of the equipment of any vessel which may be detailed for the scientific branch of the fishery service in the future. For it would be a great advantage to observe halibut under experimental conditions for lengthened period, so as to be able to tent its viability, rate of growth, and discharge of spawn.

"According to Dr. T. W. Wemyss Fulton, 24th annual rep. Scottish Fishery Board, part iii., pp. 179-274, Glasgow, 1906, the approximate size of the female halibut, at maturity, is 48 inches, while that of the male is 30 inches; and a length of 48 inches, indicates an age of about 12 years. Prof. McMurrich came to the conclusion that the spawning period begins in the eighth year and lasts, without any decided interruption throughout the succeeding four or five years.

"The halibut fishery of the Pacific Coast presents the usual complications attendant upon deep-sea fisheries elsewhere, not conforming in its distribution to natural boundaries, but being continuous from the Gulf of Alaska to Cape Flattery. There is at present no evidence that the halibut performs extensive north and south migrations, though there are abundant indications that it ascends in schools, as well as individuals, into comparatively shallow water, about 15 fathoms, near the shore line, which is generally steep steep-to on the west coast and descends into deep water, about 150 fathoms, near or over the edge of the continental shelf. There are reasons for presuming that the halibut approaches the shore in pursuit of its food and descends to the depths for the purpose of spawning.

"It is obvious that the investigation of the natural history of the halibut in its relations to the maintenance of the stock at the full strength cannot be confined within territorial limits, while it is almost equally clear that if any restrictive measure were to be proposed they would have to be based upon international agreement. The stock of the halibut is the object of persistent attack, to the exclusion of other equally valuable food fishes, captured, incidentally, and in these conditions, we have to consider whether the stock of halibut will continue to stand the strain that is imposed upon it. Up to a certain point the thinning out of the banks by the capture of surplus fishes, must be beneficial, although this optimum standard of fishing intensity is vague. Recommendations to curtail the fishery are easily made, but the fact is that there is at the present time no pressing call for drastic action and therefore this aspect of the question need not be discussed, inasmuch as what we are really asked to do is to devise measures for the expansion, not for the limitation of the industry.

"In order to throw light upon the periodical movements of halibut in the absence of marking experiments, etc., there is need for the accumulation of numerous properly authenticated records of catches with memoranda of date, locality, and depth. Records, sufficiently accurate are, at least in some cases, kept in the ship's log book, and it should be possible to arrange with some of the great companies for the tabulation of these data, so as to make them available for future reference. Statistics of the aggregate catches are easily obtained, but no detailed list of the fishing stations accompanies them, and perhaps the organization of a system of marine fishery statistics, including lists of stations, depths, methods of fishing, kinds of fish caught, dates and observations on the weather and currents, would be the first step towards a reasonable grasp of the state of the fishery from year to year. The difficulty, however, would be to ensure accurate statements of depth and locality, as the fixing of positions by the charts as they stand, could in many cases, only be a rough approximation. Nevertheless, the alleged depletion of once productive banks requires some such scrutiny as is here suggested before it can be explained.

Cleaning Pacific Halibut.

"The artificial propagation of halibut in spawning ponds would be a colossal experiment, which might nevertheless be tried; but it is certain that nothing can be accomplished in this way without considerable expenditure, while nobody could guarantee positive and successful results. Pending the inauguration of this great experiment, efforts need not be relaxed to continue the work already begun; and to do this effectively, a vessel properly equipped should undertake explorations, not merely to locate fresh halibut grounds on the west coast, but also to record observations on the state of maturity of halibut throughout the year, and especially during late autumn, winter and early spring, as well as to make determined efforts to discover the pelagic eggs, by means of the deep-sea tow net. It is difficult to see what more or what else can be done to promote the interests of this fishery, except the compilation of statistical tables.

"It is believed that for every halibut caught, at least one other fish of more or less value as food is taken from the hooks; with rare exceptions to be thrown back into the sea, either dead or soon to perish, and except in so far as these may become food for other species, they may be regardedd as a total economic loss. The most abundant are the red rock fishes and the black cod, with the former predominating. True, cod are found in largest numbers where the depletion of halibut is most pronounced, while deep-sea soles, flounders, and skates are most numerous on a muddy bottom. It is certain that the total quantity of these fishes at present wasted, is enormous in the aggregate, and in weight probably at least one-half that of the halibut itself. That such a situation should not long be allowed to continue is obvious." Dr. B. W. Everman on the Alaska Fisheries, 1913, Doc. No. 797, Washington, 1914.

Making a Yankee of a British Salmon

By JACK BECHDOLT
In Illustrated World

Of the various salmon put up in tins, the Sockeye is most valuable. Consequently, American canners are eager to pack him up and market him.

But this Sockeye salmon is a loyal subject of King George of England (long may he live!), and a native of Canada. In the matter of his preference for Canada, the Sockeye has a stubbornness that is truly British. Nothing save death will prevent the Sockeye salmon, when they are ready to spawn, from bringing up their children under the protection of the British flag. The Fraser River on the Pacific Coast of Canada has been, as long as there were Sockeye salmon in the world, the spawning-place of this fish.

From this prejudice on the part of the Sockeye, a situation which promised disaster has arisen, and would have brought ruin to many men, but for one thing. Just south of Canada, on the Pacific Coast is the State of Washington, up in the northwest corner of the United States, and in this State is an enterprising Yankee fish commissioner with an audacious and hitherto undreamed-of Yankee notion. L. H. Darwin, the officer in question, has boldly kidnapped thousands of British salmon and is in a fair way to succed in making loyal American fish of their young.

His method consists in merely using intelligently his knowledge of salmon ways and customs. The salmon is one of the unsolved sea riddles. Scientists know that it lays its eggs in a fresh-water stream and that the fry live in fresh water for a few months. Then they swim back to the sea and disappear. Where they go no man can truly say. They may swim to the equator, or perhaps far into Bering Sea.

But wherever it is when their spawning time has come—a period which arrives from two and one-half to four years later according to the species—back come these fish to the place of their birth, drifting home in a vast silver army to fight all manner of obstacles before they reach the ancient laying-grounds. There the females lay their eggs and die.

The sockeye salmon, most prized of all by the fish canners because of its firm, rich, red meat, spawns at four years of age. The Fraser River in the Province of British Columbia, Canada, is the objective point of every sockeye on the Pacific Coast.

The path of the sockeye after it enters the Straits of Juan de Fuca leading to Puget Sound and the Inside Passage, is well mapped. From the ocean the shining army makes straight for the tip end of Vancouver Island near Victoria, B.C. Just touching Canada at this point, the column makes for Rosario Strait, the lane between the San Juan Islands and the Washington mainland. A small column takes Strait Haro, the western passage between the San Juan group and Vancouver Island, but the two columns always join again in the Gulf of Georgia and swim on, always against the tides, touching Point Roberts, the northwest tip of this nation, and passing just around the corner into the Fraser River.

The men who make their fortunes trapping salmon know these things well. Every paying fish trap which handles sockeye salmon is located along this line of march.

Now all this has been fine for American fishers, because by millions the homeward-bound sockeye have walked into the American nets. But the rub has come because the supply is falling off, and Canada's interest in replenishing the stock of sockeyes is but half-hearted. The American trap owner skims the cream from the fish run before it gets to the Fraser River, and the people of the Dominion cannot see much sense in hatching fish to feed American traps. If we want more sockeyes, we must hatch them; but how hatch them when they refuse to lay eggs in American wateas?

That is where Commisioner Darwin's idea come in. This state of affairs worried the ingenious fish commissioner.

Investigators have learned that the fish deposits its eggs only in a stream which has its source in a fresh-water lake. "If the salmon only knew it," reasoned Commissioner Darwin, "there is a fresh water stream having its source in a fresh-water lake, right here in the State of Washington. I could save them a long swim if I could get them to emigrate to the United States."

Having no way to advertise the resources of his State to the salmon, the fish commissioner decided to kidnap them. He authorized the traps along the San Juan Islands to keep open during the thirty-six-hour period and took their catches for spawning.

Fish authorities said the salmon could not stand being herded into crates and towed. The commissioner proved that so far as the hardy sockeyes were concerned, this notion was erroneous.

Taking advantage of the sockeyes' instinct to swim only against the current, Mr. Darwin waited until the tide flowed out of his crates, then opened the gate, and let the fish in. Although all other species of salmon died, the sockeyes were towed, in deep crates, protected from excessive current by a heavy log boom, across American waters to Samish Bay.

At the mouth of the Samish River the fish were released. Nets were placed across the mouth of the river to keep the kidnapped salmon prisoners, but none of them showed a desire to return to the land of their birth. All swam gladly up the stream to a state hatchery on Friday Creek, a tributary of the Samish.

When they have laid their eggs, the female sockeyes die. Consequently, the efficient authorities feel no desire to conserve their lives, so at the hatchery they are killed and the eggs shaken from them. The male fish are kept alive in properly prepared places, in order that they may fertilize the eggs.

In the wooden troughs at this hatchery, in the fall of 1915, were more than a million American-born sockeye salmon, a total greater than the total catch of sockeye on Puget Sound that summer.

A few miles from the hatchery is a small, freshwater lake. All other fish in this lake were killed and there, as they reached a proper age, the young sockeyes were releasd.

In the spring of 1916, answering their primal instinct, it is expected that these first American-born sockeyes will swim back to Mother Ocean.

But four years later, Fish Commissioner Darwin expects to sit out on the west coast of the San Juan Islands and welcome his young charges home again to American soil. He reasons that the sockeyes will return to the place of their birth to lay their eggs.

Now this is a very pretty little problem in heredity. The kidnapped British salmon may wag their fins in derision and follow the crown back to the land of King George. Again, they may organize their own crowd and seek the protection of the Stars and Stripes and the Monroe Doctrine. Nobody can prophesy truly.

Fish Commissioner Darwin says he doesn't care whether his hyphenated American fish are loyal or not because every year he is going to keep on rearing American sockeye salmon to replenish the fish run now sadly diminished by the activities of the salmon canners.

If he succeeds, he will have pioneered in a business which is not only novel but extraordinarily profitable to the State he serves.

IMPORTS OF FISH INTO THE BRITISH WEST INDIES

Report of Trade Commissioner.

(Mr. E. H. S. Flood.)

The requirements for imported fish in these colonies have remained fairly steady for a good many years past. The value of the import of all kinds in the British West-Indies, British Guiana and Bermuda, has been about half a million pounds sterling. £40,000 being re-exported, leaving £460,000 as the net value for consumption. No exact information is obtainable as regards the quantity of fish imported into Turks Island, the Caymans and Caicos, but if £1,000 be allowed for this, the total for all the colonies from last available returns would be £492,439, and the amount re-exported, £35,441, leaving the net total import for all the islands at $456,996. Of this amount, probably two-thirds received the benefit of the British Preference under Schedule "A" of the Canada-West India Agreement. The total value of the different kinds of fish imported, without deducting the item of re-export, is as follows:—

Dried, salted and smoked	£363,852
Fresh fish	716
Pickled fish	85,386
Canned, preserved, or bottled	42,484
Total	£492,438

Direction of the Trade.

Of the fish imported, Canada is credited directly in the customs returns with about one-half; but this does not include Trinidad fish, the imports of which from Canada and Newfoundland are grouped together as from "British North America." It is probable, however, that about two-thirds are Canadian. Assuming this, the imports from Canada would be £262,844. The following tables gives the imports from Canada, Newfoundland, and the United States, the item of re-export being retained for uniformity:—

Canada	£262,844
Newfoundland	84,454
United States	43,343
Other countries	66,356
Re-export	35,441
Total	£492,438

Fish Trade in Barbados.

Barbados is the only colony that has any considerable export trade in fish. During the last few years the importation of dried and salted has each year averaged a little over 50,000 quintals, of which more than one-half has been exported to the northern islands, and of pickled fish the import has been upwards of 5,000 barrels, one-third of which has also been re-exported. In the last decade the average value of all fish brought into Barbados has been about £52,000 annually, but during the last five years the average has risen to nearly £60,000. The Comptroller of Customs has furnished this office with a statement of the import of fish last year—not yet published elsewhere — showing an increase in dried and salted, particularly in the import from Canada, which has risen from 18,703 quintals to 29,499—although there has been some falling-off from Newfoundland. There was less trout and salmon imported, the decrease being in the import from Canada; but more herring and other pickled fish, the increase being about an additional 1,000 barrels from Canada.

Barbados Local Fisheries.

The Clerk of the Barbados Public Market has supplied some detailed information in regard to local fisheries. It appears though the sea around the island is teeming with fish, and the catch is a large one, the industry is in no way organized, nor any record kept of the quantity of fish brought in daily, nor even the number of boats engaged in the trade. Every basket of fish, however, received into the market pays a fee, and the amount collected serves in this way as a rough index to the catch. During the long period of service, the clerk of the market has become acquainted with most of the fishermen, and knows also the different points along the shore on which fish is daily landed. The information gathered in connection with his work has supplied him with data sufficient for a reasonable estimate of the catch. He states "it is impossible to estimate accurately the quantity of fish caught per day, but during the nine months of the flying fish season I should be pretty near the mark in stating that at the different points of the island, by various fishermen, the number of flying fish captured would amount to 62,000 daily. Allowing an average weight of half a pound to each fish, this would give a total catch nearly equal to fourteen tons. Of dolphin and other varieties of large fish there is probably one ton caught, giving a total of fifteen tons of fresh fish daily caught by the fishermen of the island. During the other three months of the year there is a falling off, and the average catch would hardly be more than one-third, probably about five tons daily. There are hundreds of boats that go out daily, and a large number of men are engaged in the industry."

Varieties of Fish Caught.

The first in importance of the fish caught is the flying fish, the principal food of the poor people of Barbados, and indeed of all classes. For the three-quarters of the year the Caribbean sea around these islands swarm with this fish, and on this account the dolphin, shark, and other large fish find these waters a favourite feeding ground. The flying fish is small in size, about that of a herring and weighs from one-half to one pound. It is dark blue in color on the back, and silver under the belly. In flavor it is a most delicate fish, and does not seem to pall on the appetite when eaten daily even for a long period. The dolphin is perhaps the second in importance of the fish caught about Barbados. It follows and feeds on the flying fish, and its flesh when cooked is white, dry, and of excellent flavour. Like the flying fish it goes in schools, and when in the water is a very beautiful fish, its back glistening with all the colours of the rainbow, which after capture become, however, a dull brown. The average dolphin is about three feet in length, and weighs 15 to 20 pounds.

Other Edible West Indian Fish.

The other principal fish found in the market in Barbados, in order or quantity, are the cavally, bonita, and jacks. These are all fairly large fish—swim in schools of hundreds—and are caught with the seine net. Of these the favourite is the bonita, whose flesh is delicate and well-flavoured. There is one very large fish which is daily found in the market, though not in any quantity—the bill fish — which usually weighs from 100 to 200 pounds, but some times as much as 500 pounds. Two other large fish are caught — the albacore and king fish—the latter of which is considered a delicacy and varies in weight from 10 to 14 pounds. Mention must also be made of the breams, deeps, and groupers, the latter of which comes in three varieties. The mutton fish is also caught and is considered a delicacy. Grayfish and crabs are occasionally caught about the shores, and some times found in the market. For about six months of the year the sea-egg, unique to Barbados, is obtainable in great quantities and liked by all.

Jamaica Fish Trade.

Jamaica imports an average of £200,000 worth of fish annually. There was a falling off in the quantity imported last year as compared with the previous year, both in dried and pickled fish, though the figure for pickled fish was above the average of the previous years. The decline is accounted for in the comptroller's report by the fact that "the war followed two drought years and one hurricane year." An industry of some importance to the islands is obtaining tortoise shell and turtles, and putting up canned turtle for export. This industry has suffered some decline, and the export last year fel below the average by £3,713. The export of these items was tortoise shell £4,588, and turtle £527. In the Caicos islands, dependencies of Jamaica, there is a considerable trade in supplying the mainland with crabs and oysters. This must be fairly profitable, as it is said that a fair day's catch would average about 900 lobsters. There is also in the Caicos and Turks islands a profitable sponge industry, last year the export amounting to over £2,000. Considerable attention has been attracted by the sponge cultivation, and improved methods are being introduced by the Government under the assistance of the Imperial Department of Agriculture. The demand for sponges is constantly increasing, and has now overtaken the supply, and it is feared that the number of sponges which is gathered in the Caicos, unless better means of growth be found, will result in the depletion of the beds.

British Guiana.

There is nothing particular to remark about the fish trade of British Guiana, other than what is shown in the statistics at the end of the article. For some years past, with fluctuations the quantity of fish imported has remained about the same. The largest item is fish dried, which is pollock, British Guiana not importing much cod. More preserved and canned fish is being imported each year.

The rivers, creeks and trenches throughout the colony abound in fish, all of which are edible. The supply of fresh fish from these sources is fairly large in Georgetown, and in the villages. The only fishing industry that is carried on with any method is the deep sea fishing done by Messrs. Wieting & Richter, Ltd., who, owning a cold storage plant, are able to keep their fish when delivered in a condition to ensure a good article for the customer. The fish taken are the snapper, bream, grouper, and dolphin. For the tourist in search of rod fishing there are many places on the rivers where excellent sport may be had.

Less Consumption of Fish Per Capita in Trinidad.

In looking over the statistics of Trinidad, it appears that for many years past the quantity of fish imported has remained about stationary. Mr. Tripp, the Canadian commercial agent in that colony, states that in the last twenty years the imports of fish have increased only 6 per cent, whereas the population has increased over 50 per cent, but adds that it still remains as popular as ever with the poorer people.'' He further remarks that in former years fish was found daily on every breakfast table in the island, and this is still the case among the descendants of the old French and Spanish families, but in the houses where the English taste prevails it has ceased to be a regular food, and in some cases it is rarely to be seen.

It will be well to remember that in former years fish was free of customs duty in Trinidad, and that the invoice value of certain kinds of fish was lower. This made it a very cheap article of food, whereas at present not only is the price of fish advanced, but it pays duty. Mostly all fish now comes from Canada and Newfoundland, due to some extent to the Canadian preference, as a notable falling off in fish from the United States has been noticed since that agreement came into force.

As regards the local fisheries the blue books of the island are silent, merely remarking that a small colony of Italian fishermen from the Mediterranean carry on a trawling business. As to the variety and description of fresh fish, the following are given, without any quantity being stated: The grouper, king fish, salmon, red fish, cavally, mullet and prawns. To the sportsman, Trinidad, however, offers the best facilities in the West Indies for both in shore and deep shore fishing, and some of the finest game fish—the tarpon, king fish, and the barracouta—abound in the Bocas and inlets of the island. The sporting tourist will find little difficulty in obtaining fishing privileges, as it has now become a practical industry to prepare outfits and direction for this kind of entertainment.

Market Notes.

All imported fish have been in rather light supply in Barbados since the first of the year. At present codfish and herring are in good demand. Arrivals of a considerable quantity of both dried and pickled are noted in the last fortnight, most of which is for re-export. Haddock is now quoted, duty paid, at $28.37, salmon in full barrels at $16.27, and prime large cod at $34.

Trinidad "prices current," issued by a leading firm of Port of Spain, note the arrival of some 350 packages of fish, but "no other change to report." Large Newfoundland is in demand at $33.25 net. Scale fish is inquired for, haddock being worth $28 and $29, with pollock at about the same figure. Smoked herring in 3-pound boxer is quoted at 23 cents, and in 20-pound boxes at $1.25.

DANISH FISH REFRIGERATION PROCESS

The Department of Trade and Commerce, Ottawa, has received through the High Commissioner's office in London, detailed information concerning a new method of fish refrigeration invented and patented in Denmark. As the successful placing of frozen fish on the British market is now being considered by Canadians engaged in the fishing industry, the following particulars relative to this subject should be of interest:—

Drawbacks of Freezing in Air.

It is claimed by the inventor that the method of freezing fish in air but slowly imparts the cold to the inside of the fish and that the tissues of the fish are often broken by the formation of large ice crystals. At the same time the fish is dried up and its flesh becomes porous so that it may easily be permeated by the air and thereby rendered less durable when thawed. This air process freezing moreover, which is carried on by a number of tubes through which cold air or cold fluids circulate, necessitates the operation of expensive plants, as a number of well insulated freezing chambers is essential. Further, the thorough freezing of a fish in such chambers takes place very slowly and lasts 30 to 40 hours for fish of ordinary dimensions.

The refrigeration of fish by packing in ice is also claimed to be unsatisfactory as the fish are adversely affected by the melting ice. Moreover, when the fish are to be transported a considerable distance, almost the same amount of ice must be used as the weight of the fish, thereby increasing the price to the consumer by the extra freight cost of the ice.

New Invention.

Keeping in view these drawbacks, the important invention was made by a Dane of freezing the fish by direct submersion in a fluid cooled off to C. 15 degrees below zero. The fish are then frozen to the very bones in two to four hours, smaller fish being frozen in less time.

The inventor claims that by this quick method of freezing, the fish tissues are not broken, the fish keep their fresh and natural appearance on being thawed, and that the slime is not dried up as when the freezing is done in the air, but forms a protective layer around the outside of the fish, which prevents any adverse atmospheric attacks.

As the saline solution used in this process of fish refrigeration generally contains from 15 to 19 per cent of salt, it might be supposed that such a solution would salt the fish during the freezing. It is claimed, however, that no such action takes place and that through the action of the cold a fresh fish may be submerged without receiving salt in any way from the solution.

The saline solution used to be made of pure common salt dissolved in clean water.

No special freezing room is required for treating the fish by this process. The container holding the fluid, in which the fish are directly submerged may together with the freezing machine be mounted in any room, and even in the open air if necessary. The freezing plant may also be used in fishing boats. The fluid is cooled off by a freezing-machine so constructed that it satisfies the special requirements demanded and as the saline solution is kept at the point where its osmotic effects completely cease, no salt penetrates into the fish, which are in direct contact with the fluid. It is further alleged that it has even been possible to freeze live fish by this method and bring them back to life by thawing.

Opinion of French Expert.

Mr. Fabre Domergue, the French Government Inspector-General of sea fishing, carried on experiments with this process and at the conclusion of his investigations, stated that the following facts had been substantiated:—

1. After being thawed in water for five or six hours, the fish look like fresh fish and are in the same condition as fresh fish.

2. Although some of the fish used in the experiments, e.g., the whiting, have flesh which easily crumbles, freezing at 16 degrees did not cause the slightest injury to the fish tissues but on the contrary, the fish after they had been prepared kept their firmness and usual taste.

3. The quick freezing of fish in cold brine is distinctly a progressive step in methods of fish refrigeration.

Further Information.

Further information regarding this subject by experts, who believe the process to have many indisputable advantages over the usual methods of freezing fish, is on file in the Department, where it may be inspected by interested parties. (Refer File No. 16259.)

PRINCE RUPERT NOTES.

Fish receipts at the Port of Prince Rupert for the month of June were: Salmon 9,511 cwts., codfish 730 cwts., halibut 16,402 cwts., and shell fish 20 cwts. Total value $133,315.

Of the above as regards salmon 6,235 cases were canned. 1,385 cwt. shipped fresh or frozen and 1,925 cwts. mild cured.

The new fish depot of the Booth Fisheries is nearing completion and Mr. W. Maddeck is taking charge according to reports. This makes with the Atlin Fisheries, and the Pacific fisheries, the Canadian Branch of the San Juan Fishing Co., of Seattle, and the Canadian Fish and Cold Storage Co., Ltd., four of the largest concerns on the Pacific Coast using Prince Rupert as a Port of Entry.

The Chief Inspector of Fisheries, Mr. Cunningham, recently made a trip of inspection to the canneries in the North. The cannery season is now in full swing although the fish are late running.

One of the boats operating out of the port, picked up a dead whale and towed it to Naden Harbour whaling station, where they sold it to the whaling outfit operating there. This concern have several steamers hunting whales, and from all reports the season's catch has been a fair one.

The Act respecting the Pacific Coast Fisheries now before the United States Congress, is being watched with interest by local people. If this Act goes through it will be no doubt have effect on the Prince Rupert Halibut industry, the local opinion is that such effect can only be temporary, as the one essential in the fish business is speed of delivery, and, as to this, Prince Rupert has a natural advantage which is very hard for other ports to overcome.

Splendid catches of spring salmon have been made off the Queen Charlottes by means of trolling. About eighty boats are engaged in this method of taking salmon, and have met with good success. Boats fish with several troll lines at the same time by means of spring poles, and the returns are a deal better than from net fishing.

A temporary stoppage of the Canadian Fish and Cold Storage Co. plant was caused recently owing to a labour dispute, but this was quickly settled and the plant is again in full swing. The dispute was over the question of overtime, &c.

FISH-KILLING FISH.

(Letter in New York Sun.)

Men's efforts in the depletion of certain species are of negligible quantity. In common parlance, "but a drop in the bucket."

When the shad, herring and menhaden are making their way in great masses and phalanxes northward along the Southern coast, large schools of shark, blues, mackerel and weakfish loll on the surface to intercept the immigrants.

After gorging themselves with the harmless and non-resisting schools the savage fellows turn in, if not too lazy, and lacerate for sport countless thousands of the oncoming edibles.

We have seen on the ocean's surface, at the mouth of the Virginian Capes, upon a calm day, a swath of minced fish ten miles long and varying from half a mile to one and a half miles wide, the product of such carnivorous sport.

Should the herring tribes, or some other schooling surface feeders, not come along when meal time again arrives, the shark will pitch into the blue, mackerel or big, clumsy weakfish, the latter somtimes suffering severely.

In turn, the blues and mackerel, if hungry, will raid the weakfish, not only gorging themselves with these hitherto partners in crime, but, for the sport of it, slaughtering schools of them, their minced carcasses left floating upon the ocean's surface.

Pacific Salmon Market

Seattle, Wash., July 21, 1916.

The canned salmon demand has been very strong during the week. Inquiries have increased considerably in volume. The demand was largely for spot stocks, although futures were by no means neglected. With pinks practically the only grade in any kind of supply for immediate delivery, this grade naturally came in for more attention than the others. As a result of the steady and insistent demand prices were forced up a notch. Some sales were made on the basis of 87½ cents, which represents the highest level yet reached since the upward trend of values commenced.

While the supply of spot stocks is very limited in all grades, it will not get any less from now on, but rather will increase from day to day as the result of arrivals of new packed goods. This means, of course, that the old argument of low stocks cannot be made much longer. Canned salmon is now arriving regularly from the North, although with two and possibly three exceptions in only small lots.

One lot of 20,000 cases of 1916 red Alaska salmon is offering. Asked what this fish will sell at, the broker handling the product stated that he expected to have no difficulty in obtaining $1.70 to $1.85. This fish is recognized as especially high grade.

Foreign buyers are very active in their efforts to tie up stocks for export. For the most part, it is rather too early for packers to contract and very little of such business is being finally negotiated. The tendency is to prolong negotiations until a better view of the pack can be had. This will be a month yet.

There is the usual "short-pack" talk everywhere now. This may be due to the fact that Puget Sound canners have as yet done comparatively little. The fish are running on the banks, although the big run is not here yet. The Sanitary Fish Company, of Anacortes, Wash., however, has been quite fortunate so far. This concern is now operating two lines every other day, which is considered good for this stage of the game.

J. L. Smiley, one of the best-posted men in the salmon business, returned last week from Alaska, where he investigated conditions carefully. Mr. Smiley said: "Alaska cannery men are not making any predictions on the coming season. They hope for a large catch because of an apparent good market. Prolonged cold weather this spring in Alaska has made the season much later than usual, and may possibly cut down the size of the pack. It is not generally known that cold weather in the spring will delay the fish season just as easily as it does fruit and vegetable crops. When the water is too cold at spawning time the fish do not go up streams, but remain in the deep water.

Columbia River salmon packers, who are about 60 per cent short of a normal pack so far, look for a big run of fish in the near future. Large schools of salmon have been observed off the mouth of the river. This is generally an indication that the fish will soon reach the river. The phenomenal high water in the Columbia River is held to be the reason why the salmon stay so far out in the ocean. The fresh water is going further out than in normal times.

In British Columbia, salmon canners have done very little. There will be 19 canneries operated on the Fraser River this season. Between 2,574 and 3,000 fishermen's licenses have been issued for the Fraser River this season. British Columbia canners hope for a big pack, due to the excellent demand for export to the United Kingdom.

The freight rate on canned salmon from Atlantic Coast ports to England has been cut to $1 and there is every indication of still lower rates before very long.—The Canning Trade.

FORMER B. C. TRAWLER GOING BACK TO NORTH SEA.

The SS. Triumph, formerly belonging to the British Columbian Fisheries, Ltd., has left Vancouver for Halifax, N. S., via the Panama canal. This vessel was purchased from the liquidator of the British Columbian Fisheries, Ltd., by the firm of Kendall & Olesen, of Grimsby, England. During her lay-up of three years at Vancouver she was allowed to run down, and considerable work was necessary to refit her for her original business of otter trawling. A master and engineer were sent from England to refit the vessel and get her ready for sea, the work being done under the superintendence of the Canadian Fishing Company, Ltd., acting as agents for the owners. Mr. Kendall himself arrived in Vancouver a few weeks before the boat sailed, and is remaining on this coast for a few weeks longer. The SS. Triumph expects to fish on the Newfoundland banks, and to deliver her catch to Halifax. N. S., after which she will proceed to Grimsby, England, fishing while on her homeward voyage.

FORTY CENTS FOR FRASER RIVER SOCKEYES.

At a meeting of the representatives of the salmon canners on the Fraser river, held on July 6, the following prices were fixed for salmon.

Sockeyes, 40 cents per fish; Red Springs, 5 cents a pound; Cohos, 20 cents per fish. The matter of prices for Pinks and Chums was left for later consideration.

No canneries on the Frazer river have started operations as yet. Some fishermen brought in four or five fish each on July 6. The total number of licenses taken out by fishermen for the Fraser is now 1010.

The Canadian sea lion commission, composed of Drs. C. N. Newcombe and C. McLean Fraser, with W. Hamar Greenwood as secretary, left on June 19 aboard a small launch for a trip to the coasts of northern British Columbia, which will probably consume about two months.

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PISCATORIAL PARAGRAPHS.

(Concluded from page 252)

The Gloucester fishing schooner "John J. Fallon" was seized and brought into North Sydney, N.S. on July 13th, by the Revenue Cutter "Hochelaga" which caught her fishing inside the three mile limit off St. Paul's Island, Gulf of St. Lawrence. This is the first seizure of the season. Illegal fishing by American halibuters and salt fishermen in the Gulf is nothing unusual—in fact most of them will run their trawls inshore if the fish are striking good and the cutter is thought to be out of the vicinity. If there were enough cutters to patrol Anticosti, Bird Rocks, West Shore of Newfoundland, and the Quebec Labrador, a seizure could be made every week.

Mr. H. H. Marshall, ex-M.P.P. has been appointed Inspector of Fisheries for Western Nova Scotia in place of Mr. Ward Fisher who is now Asst. Superintendent of Fisheries at Ottawa. Mr. Marshall's headquarters will be at Digby, N.S.

Herring packing in the Scotch method is being extensively carried on in Cape Breton this summer. The catches are good and one firm, Farquhar and Co., of Halifax, have a staff of Scotch girls packing herring at North Sydney.

W. F. Wiley, managing editor of the Cincinnati Enquirer and an angler of wide repute, is considering a suitable award for the best "fish story" of the season. So far the best one that has come to the ears of the editor and erstwhile disciple of Isaac Walton is the story of how bass happen to be swimming in the Potomac River.

Mr. Wiley has been informed that when the Baltimore and Ohio was completed to Wheeling, in 1852, a young civil engineer of sporting proclivities, about to return a locomotive "deadhead" to Baltimore, conceived the idea of filling its tender with fresh water and as many bass as the capacity of the tank would permit, and transporting the fish across the Allegheny Mountains to a point near Cumberland, Md., where they were "planted" in the eastern stream.

This propagation has been highly productive, the Potomac having become world-famous for the bass fishing which it offers to sportsmen.

BOOKS OF FISHERY INTEREST.

A very valuable and interesting volume just from the press is the Northern British Columbia Index and Guide compiled and published by Mr. F. S. Wright, Prince Rupert, B. C. In addition to much agricultural, lumbering and mining information, the book contains much valuable matter regarding the fisheries of the vicinity. The whole is an authoritative directory of the resources and opportunities of the Prince Rupert district. The price is $2 and may be procured direct from the publisher.

The Department of Colonization, Mines and Fisheries of the Province of Quebec have just issued four pamphlets dealing with the resources and possibilities of the Gatineau Valley, the Labelle region, Lake St. John and the Temiscaming. All these districts, especially the two latter, have many rivers and lakes suitable for commercial fishing. The books can be procured on application to the Department at Quebec.

A report just issued by the Commission of Conservation, "Conservation of Fish, Birds and Game," directs attention to the great value of these resources to Canada. The volume is a report of the proceedings of a conference of the Committee on Fisheries, Game and Fur-bearing animals of the Commission, and contains a fund of information regarding the present condition and the necessity for protection of Canada's fish, birds and mammals.

The future of the Fisheries of Canada is dealt with in an able manner by the highest authorities in this country. That they are of great present value is recognized, but there is also a potential value in oceanic and inland waters, which, upon development, would mean the creation of new industries. To meet this condition, the Commission is suggesting vocational training and simple demonstration stations for the fishermen, that they may take advantage of the most practical and modern methods of their calling.

The report is replete with illustrations applicable to the subject matter.

The Industrial and Educational Press, Ltd., will publish shortly a Directory and Annual of the Canadian Fishing Industry. The book will be profusely illustrated by unique photos and drawings and will contain a comprehensive outline of the various fisheries engaged in Canada; statistical information, tables, etc. The book is designed to fill a long felt want in the fishing industry and it will become a valuable desk manual for those interested in the commercial fisheries.

Another volume, but of a different class, will be brought out in the near future by the same firm. This will contain a selection of the best short stories of the deep sea fishermen written by Frederick William Wallace and published in various American magazines. These tales proved very popular with the magazine reading public and the best have been selected to form a volume entitled "The Shack Locker"—a title which will commend itself to all deep-sea fishermen.

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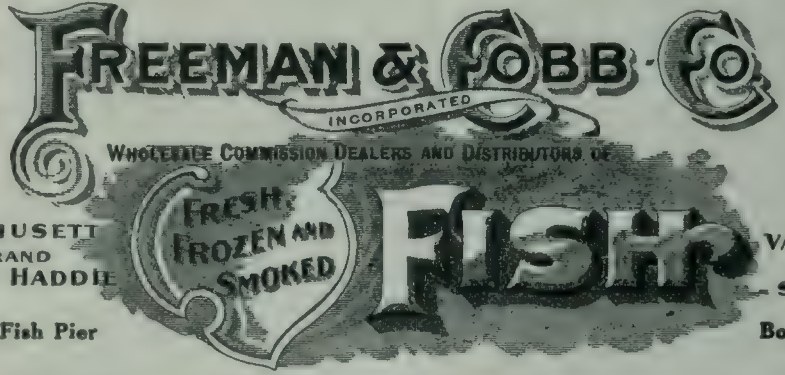

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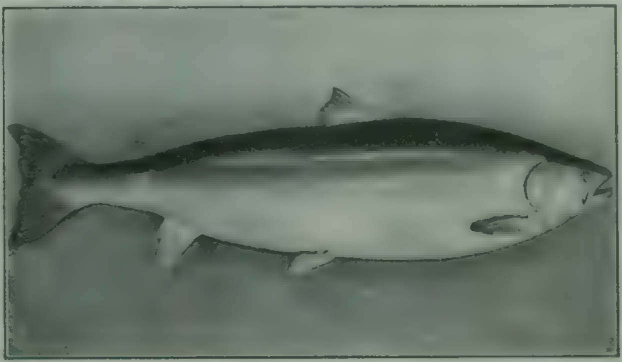
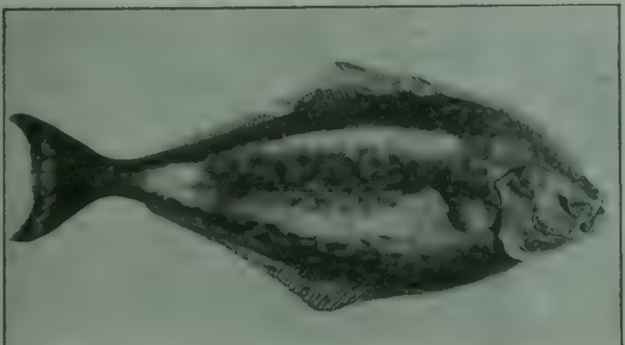
Official Organ of the Canadian Fisheries Association

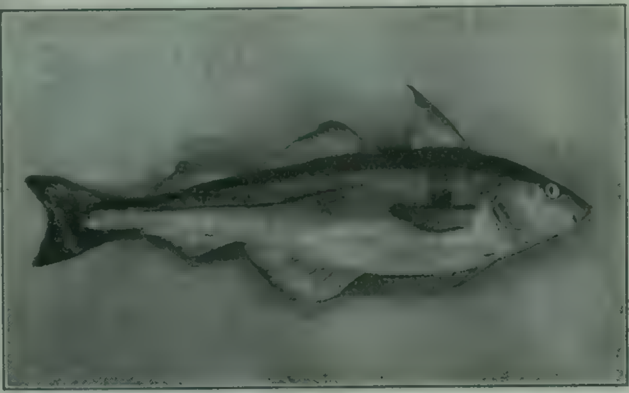
CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, SEPTEMBER, 1916 No. 9







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ONTARIO
Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted—October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries
Of the Province of Quebec

Department of The Naval Service

Fisheries Branch

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $32,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on June 1st, 1916

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)				1 April to 15 June.
Maskinonge				15 April to 15 June.
Ouananiche				1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 & July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	
Pickerel				April 15 to May 15.
Salmon (netting)	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb. 28	Aug. 1 to April 30.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Sept. 16 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	April 1 to June 30
Sturgeon		June 1 to July 1.		June 1 to June 30.
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to April 30
Salmon Trout				Oct. 15 to Dec 1.
Whitefish				

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)	a1 Jan. to 15 June.			
Maskinonge	1 Jan. to 15 June.			
Ouananiche				
Oysters				May 1 to Aug. 31
Quahaugs				
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	
Salmon (netting)				
Salmon (angling)				
Smelts				See regulations.
Sturgeon		Oct. 16 to June 15.	Oct. 16 to June 15.	
Speckled Trout	cSept. 15 to April 30.			
Salmon Trout	gOct. 5 to Nov. 30.			
Whitefish	gOct. 5 to Nov. 30.	Sept. 15 to Nov. 19.	Sept. 15 to Dec. 15.	

a—Except in Lake Erie west of Pt. Pelee where close season is May 24 to July 15.
b—Except on leased areas, where close season is from 1 July to 31 Aug.
c—See regulations.
d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.
e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.
f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.
g—For exceptions see regulations.
i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.
For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED
TO THE COMMERCIAL FISHERIES
OF CANADA AND NEWFOUNDLAND
THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE
OF FISH PRODUCTS

F. WILLIAM WALLACE
EDITOR

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Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, SEPTEMBER, 1916 No. 9

September Fish Day Calendar

1916			SEPT.			1916
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
					$\boxed{1}$	2
3	4	5	6	7	$\boxed{8}$	9
10	11	12	13	14	$\boxed{15}$	16
17	18	19	$\boxed{20}$	21	$\boxed{22}$	$\boxed{23}$
24	25	26	27	28	$\boxed{29}$	30

EASTERN REFRIGERATOR EXPRESS CAR SERVICE.

With regard to the new service accorded the fish interests over the Canadian Government Railways, and which we announced in our last issue, we are pleased to state further that the specially insulated express baggage car has been constructed and by the time this is printed, it will have made its first trip.

This car will have refrigerator space for six thousand pounds of fish and will leave Mulgrave every Monday. The reasons given for selecting this day are that: "As Montreal has available to it a fast freight refrigerator car service three days per week, in addition to the ordinary express service, its needs are fairly well met, keeping existing conditions in view. It was, therefore, thought best that this car should leave Mulgrave on a day that would be most suitable for shipments for Toronto and other points west of Montreal in order that it may be used to the greatest extent possible in extending the demand for fish in the more Western points of consumption. The car made its first trip on Monday, August 21st, and will run weekly throughout the season.

In order that the usual rate of transportation may be available to those forwarding shipments in the insulated space on this service, the Department of Marine and Fisheries will undertake the cost of icing the car.

This is a step in the right direction and there is every indication that it is but the beginning of several progressive ideas which the Department and the Canadian Fisheries Association have on the table for the future welfare and development of our fisheries.

NATIONAL FISH DAY, OCTOBER 31st.

The next National Fish Day will be launched by the Canadian Fisheries Associations' Publicity Committee on Tuesday, October 31st. The last Fish Day promoted by the Association was a phenomenal success, but it was in the nature of an entering wedge — a raid on the first line trenches of ignorance and prejudice as it were. The coming Fish Day is to be the opening of a big offensive for the purpose of separating fish from Friday. The day will be held on a Tuesday, and it is planned to make it the inauguration of a universal Tuesday Fish Day every week.

The campaign plans will be fully discussed at the Executive Committee meeting of the Canadian Fisheries Association which is being held in Toronto on Tuesday, September 5th.

EXECUTIVE MEETING, CANADIAN FISHERIES ASSOCIATION.

An Executive Committee Meeting of the Canadian Fisheries Association will be held in Toronto on Tuesday, September 5th. The members will convene at the King Edward Hotel, at 10 a.m.

Tuesday, September 5th, is Transportation and Fisheries Day at the Canadian National Exhibition which makes the date particularly appropriate for a fisheries convention. Several important matters will be taken up by the Executive — notably the National Tuesday Fish Day mentioned before. New member's applications will be passed and a campaign for further increasing the membership will be discussed. We also wish to advocate, as an Association representing the Commercial Fisheries of Canada, a greater amount of advertising for our fisheries, and the value of our fish as food, by the Government. The Fisheries has been the "neglected child" of our basic industries too long. A move in the technical education of our fishermen should be commenced now. There is the after-war trade to be considered and if we do not start now and bring our fishery products to the highest plane, we are going to lose against the competition of European fishermen when the war is over.

The meeting will be productive of good results for the Fishing Industry as a whole, and those individuals and firms who refrain from joining the Association and aiding its work are of the apathetic class, who, while deriving their incomes from the fisheries, do absolutely nothing to foster the industry or endeavor to bring it up to the standard it should hold. They are also sharing in the results achieved by men who saw further than their nose and who are big enough to bear a hand in helping the Fishing Industry along progressive lines without looking at the cost or slacking because it might benefit a competitor. There are a good many men yet who could bear a hand by tailing on to the rope at the present time. Let them come along now and help out the pioneers who are doing all the hard work and who have so ably blazed the C. F. A's trail in the Fishing Industry of this country.

BIG FISH CONSUMPTION IN THE FUTURE.

The Montreal "Gazette" concludes an editorial on our Fishery resources by stating "There are evidences that the land, as now managed, cannot produce the flesh foods needed to maintain its people. What makes the resources of the sea more valuable is in the way of relief." All of which is prophetic.

The day is coming when meat will be too expensive for any but wealthy people to purchase. It is dear enough now for the purse of the working man, but the idea that there is no substitute for meat, dies hard, and much education of the public to the value of fish foods is badly needed.

To-day butcher's steers are selling at $8.30 cents per cwt on the hoof alive. The cheapest meat is butcher's cows at $5.50 to $6 per cwt, live weight. Sheep run from $5 to $8.75 alive; calves, $7 to $12; hogs, $12 to $13. These prices are all wholesale, and there is very little prospect of cheaper meats in the future. In fact, there are no prospects at all.

Wholesale or retail, almost any variety of fish is half the price of meat. It is every bit as wholesome and as nutritious, and the supply is practically inexhaustible here in Canada. True, there are some varieties which are liable to be depleted unless conservation looks after them, but the great bulk of sea fish, such as cod, haddock, herring, salmon, hake, skate, cusk,pollock , etc., are in great abundance and extremely prolific. The Northern Lakes of Canada hold stores of fresh water fish which have never been touched and it would take many years to deplete them even if no artificial propagation was done.

The day is not far distant when our population will have to look around for a substitute for meat. Fish is the only one.

EVIDENCES OF PROGRESS IN FISHING CRAFT.

Inside of four years, Canadian fishing craft propelled by gasoline and oil engines increased 100 per cent. The same revival has occurred in Newfoundland, and our Newfoundland correspondent mentions, in this issue, that "the increase for last year alone was larger than the number in use for all the previous years together. Four years ago, the first motor boat was introduced into the fishery. It is expected that a year or two hence, only motor boats will be used."

Our correspondent also mentions that the only Banking schooner in Newfoundland fitted with an auxiliary engine — the "Metamora," Capt. John Lewis — was able to make three Grand Bank fishing trips in one season and brought in a fare of 5,000 quintals which was "by far the largest catch of the season and has never been excelled in the history of the fishery."

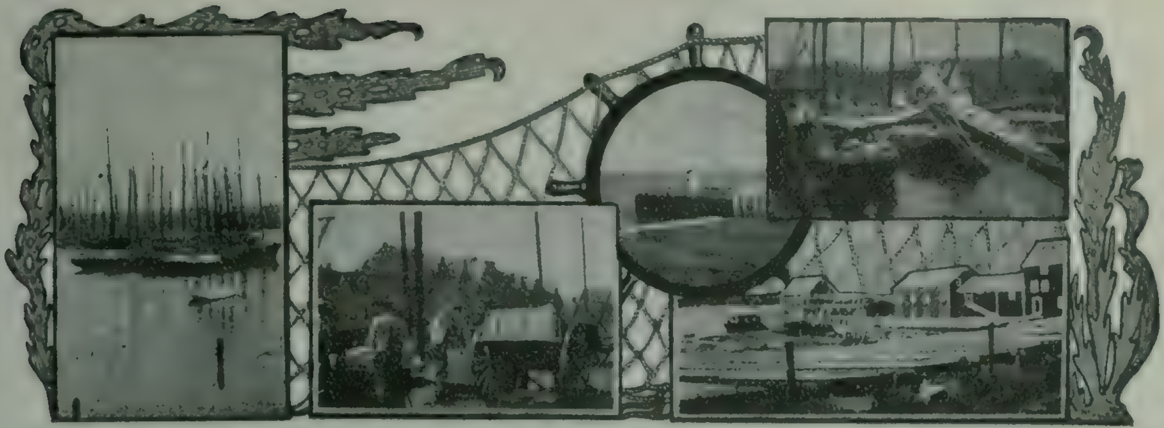
There is no doubt whatever, but that the use of modern and up-to-date craft in our fisheries will increase the value of the catch very largely and enable our fishermen to get more out of it. The motor engine is the prime factor in the work — the days of sail and oar is past.

In the period from June 25 to July 25 over 9,000,000 pounds of fish was landed at Prince Rupert and in the canneries on the Skeena in the neighborhood. The salmon amounted to 6,625,500 pounds, halibut to 2,497,200, and cod 61,300. The record for the present month is going to be even greater for up to the 15th there had been brought in 2,000,000 pounds of halibut alone.

SCHOONERS ARE SEIZED.

TheAmerican fishing schooners, Maxime Elliott, 111 tons, of Gloucester, Mass., and the Lizzie Griffin, 107 tons of Bangor, Maine, seized while fishing off the coast of Iceland by British patrol boats, have been taken to Lerwick, Shetland Islands.

The American schooner Lucinda, J. Lowell, 110 tons, on the way from Gloucester, Mass., to Norway, with a cargo of dried herring, also was taken into Lerwick, but was released after a search.



REVIEW OF NEWFOUNDLAND'S FISHERIES FOR 1915

By J. W. McGRATH.

The year 1915 was on the whole a successful one for the fishing industries of Newfoundland, and some of its features entitle it to be classed among the 'big' fishery years of the colony. And when the unsettled conditions that prevailed, and the general abnormal conditions created by the war are considered, it is apparent that everyone connected with the industry, and the whole country in general, have much to be thankful for. The Report of the Marine and Fisheries issued, for the year 1915 has the following on one of its first pages:—"It is again a matter of sincere congratulation that while extraordinary and unprecedented conditions prevail almost universally owing to the great war, our fishery products have been enhanced in value generally, and our exports have not been affected in any way."

Codfishery.

The export of dried codfish for the fiscal year ending June 30th consisted of 1,094,242 quintals valued at $7,332,287. These figures compared with the corresponding ones of the previous year, show a decrease in the number of quintals of 153,072, and in valuation of $739,602.00.

The following are the figures for the above period for the past six years:—

Year 1910	1,502,260	Value $7,307,778.00
Year 1911	1,182,720	Value $6,554,604.00
Year 1912	1,388,178	Value $8,001,703.00
Year 1913	1,408,582	Value $7,987,389.00
Year 1914	1,247,314	Value $8,071,889.00
Year 1915	1,094,242	Value $7,332,287.00

While the total catch for the year and the value therefrom is the lowest for five years, the catch per fisherman engaged was not smaller than for preceding years. The comparatively small catch is directly attributed to the smaller number of men engaged. Many of the best fishermen volunteered for service in the Navy and Army, and owing to the consequent depletion in the ranks of the best and youngest fishermen some schooners were unable to obtain sufficient crews, and either engaged in the voyage on a smaller scale or abandoned it entirely. The number of fishermen serving in the ranks at the present time are roundly 2,000 in the Navy and 3,000 in the Army.

Of last year's catch the chief markets of the Mediterranean received 568,666 quintals, as compared with 593,821 quintals in the previous year, of which the distribution was as follows:

	Greece	Italy	Spain	Portugal
1910	89,702	252,542	199,662	321,296
1911	42,715	132,153	174,711	258,523
1912	69,280	212,061	214,904	206,206
1913	60,527	207,617	248,266	203,989
1914	69,902	170,634	200,526	153,023
1915	62,508	143,249	211,329	151,580

The markets of Brazil took 362,018 quintals, as compared with 462,233 quintals in 1914, 417,155 quintals in 1913, 423,080 quintals in 1912. And as a matter of fact this shows a smaller quantity for this period than in any year since 1909.

Pickled fish shows an export of 71,602 quintals, valued at $244,351.00, of which 13,857 quintals went to Canada, and 57,745 quintals went to United States.

These figures compare with 111,252 quintals valued at $425,703 in 1914, of which 2,540 quintals went to the United Kingdom, 4,470 quintals to Canada, and 103,991 quintals to United States. The export for 1913 was 57,858 quintals 8,302 of which were marketed in Canada, and 49,556 quintals in the United States.

As result of a Reciprocity Bill passed three years ago between this Colony and the United States, by which pickled fish was given free entry there, large and increasing amounts of this quality of fish are yearly finding market there. The decline of last year is purely artificial and is due to the fact that owing to the high prices paid for Labrador fish last fall a large quantity which under normal conditions would have been marketed in United States was kept back, given some curing and sold in the European market, Greece, as 'Labrador Slop'.

The total valuation for the export from the colony from the products of the fisheries is placed at $9,639,789.00, as compared with $10,907,667.00, $10,242,536,00, $10,639,721.00 for the three previous periods.

Of this amount codfish is responsible for $7,332,287.00, and the oil products represent $816,386.00.

To the total catch for the year the Labrador codfishery contributed 361,698 quintals having a valuation of $561,300.00.

Of this amount there were shipped direct from the Labrador coast to the different markets 112,260 quintals, valued at $501,300, showing an increase of 21,211 and an advance in value of $199,852 over the previous year's.

The number of men engaged in the fishery was 6,046 as compared with 6,807 in the previous year. The total number of persons employed in connection with the industry was 10,695 of which 3657 were males and 1,073 females working in shore crews and freighters.

The statement below gives the comparative export (from the coast) since 1913:—

	Qtls.	
1913	111,876	Valued at $525,817.00
1914	91,049	Valued at 361,448.00
1915	112,560	Valued at 561,300.00

The Grand Bank codfishery was engaged in during the year by 102 schooners having a tonnage of 7,526 and carrying, 1,806 men as compared with 105 schooners, 7,790 tons and 1,892 men in 1914.

The results for this outfit are unprecedented in the history of that fishery. The average catch per vessel being 1,670 quintals, and that per man was 94½ quintals.

The following gives a comparative statement since 1907:—

Year	Catch	Per man
1907-8	120,000	60 Qtls.
1908-9	131,452	93½"
1909-10	144,924	92 "
1910-11	149,924	78 "
1911-12	155,517	75½"
1912-13	152,374	83 "
1913-14	124,067	66 "
1914-15	170,390	94½"

With regard to the number of vessels engaged in this fishery last year, together with the amount of tonnage used, and the number of men employed, Grand Bank shows larger returns than any other town or district in the whole island. The returns of this fishery for the various ports are as follows:—

Port	No. of vessels	Tonnage	Crew	Qtls.
Burgeo	2	130	28	1,785
Ramea	5	283	40	2,805
St. Jacques	6	408	100	10,335
Marystown	4	232	59	3,687
Burin	25	1,768	432	48,300
Stones Cove	5	373	94	8,790
Fortune	4	302	71	5 970
Harbour Breton	8	583	156	14,530
Bay L'Argent	3	164	45	3,490
Belleoram	10	856	97	22,110
Grank Bank	30	2,430	584	45,598
Total	102	7,256	1,806	710,390

These returns though as accurate as possible do not attempt to give the number of vessels which engaged in the fishery for some time, during the year, or vessels from isolated districts which engaged, for which no reports were sent; and if such craft as these were enumerated, the number would be brought up to about one hundred and twenty schooners. A most important and significant incident in connection with this fishery was the use of a motor powered banker for the first time in its history. The schooner which was fitted with a high powered Bolinder engine is owned by Capt. John Lewis of Holyrood, and captained by him also; the schooner's name is the Metamora. With the aid of his engine Capt. Lewis was able to make quicker despatches to, and from the Grand Banks, and as result loaded his schooner with cod thrice during the fishing season, which gave him a total catch for the year of 5,000 quintals. This was by far the largest catch for the season, and as a matter of fact has never been excelled in the history of the fishery. The installation was a venture which was frowned upon by many of the banking fleet, and it was generally asserted that the use of the engine in banking would be found unpracticable, but events proved otherwise, and the result of the experiment will not unlikely influence others to thus provide themselves with similar equipment for the voyage either this year or very soon; if the use of motor engines come to be used extensively in fishing vessels on the Grand Banks, and if the catch taken by Capt. Lewis last year is any criterion of what the effect would be, there is no reason to doubt that this fishery will very soon become twice as important as at present.

The Herring Fishery.

Last year was without doubt one of the most important in the history of the Newfaundland herring fishery. A complete revolution in the methods of pack was begun which was highly profitable in itself, and which is bound to lead to a manifold development of the industry, as hitherto prosecuted. The herring fishery of Newfoundland, anterior to last year, was on the whole prosecuted in an irregular and desultory manner; comparatively few engaged in the industry; and those who did were possessed with obsolete equipment for fishing. The containers for the pack were not unfrequently leaky as baskets; so that that part of the pack which was not lucky enough to be disposed of in the frozen state were either thrown overboard as unfit for use, or found a market in the West Indies fetching around $2.00 per barrel.

Early last fall several American herring dealers came to the country, and owing to the scarcity of Scotch and Dutch herrings in the American market, offered good prices for the Newfoundland herring provided they would be packed properly, and in packages that were pickle tight. The inducement of high prices encouraged many more than usual to engage in the fishery, and to pack the article as carefully, and as up to date as possible. Accordingly last winter's herring fishery was prosecuted with excellent results, all things considered.

The Report of that fishery, by Consular O. C. Gould, Bay of Islands, was as follows:— .... The outstanding feature of the local herring fishery is now the Scotch method of cure. The fourth of the catch in Bonne Bay of Islands appears to have been cured by this method, as opposed to 16% domestic cured; and the Scotch cured article contributed 45% of the total value of the catch, as compared with 15% contributed by the domestic cured. If Newfoundland's use of the Scotch method produces an article thoroughly acceptable to the American market, the relative positions of the Scotch and domestic cure will become even more favourable to the former.

During the past year, the Scotch packers could not have used a deal more herring than they did, and this fact, combined with some uncertainty as to the price in the United States, did not warrant their cutting actively into the field of the New England firms. The New England firms obtained their normal amount of herring; but that considerably increased in price. They may not fare so well another year.

If the Newfoundland Scotch packers have the assurance of an American market, even at prices somewhat lower than the top prices, of the past season, they might be able to bid the American vessels out of much of their herring and many of their fishermen. Such a situation presupposes an equal number of fishermen; the excellent returns secured by the fishermen this season are likely to attract many others to the work in 1916.

This Report shows the great amount of progress which was made in the conduct of the industry of last year, particularly in the method of pack. It may also be mentioned that trouble in conection with the barrel difficulty that has in a large measure been remedied. Several cooperages have been erected in and near the herring districts, where excellent barrels for the purpose are produced, and the only difficulty in connection with the barrel problem now remaining is the question of an adequate supply for the growing demand.

With regard to the price, the Fisheries Report has this to say:—

The price of herring at Bonne Bay fluctuates considerably during the fall; but was not at any time less than $1.50 to over $2.50 for Bulk Herring; $2.25 was the average price paid for this class of herring as taken from the net. Frozen herring averaged $1.50 per basket, and pickled herring $1.50 per brl., with competition keen."

With regard to the number of presons and boats engaged it says:—

"There are about 420 men with 120 motor boats, 20 row boats, and 840 nets engaged in the fishery at Bonne Bay. There were also some 60 labourers employed by the packers ashore, who received twenty cents an hour continually during the herring season.

It will be noticed that a large number of motor boats were used in, and connection with the prosecution of this fishery last year.

The increase for last year alone was larger than the number in use for all the previous years together. Four years ago the first motor boat was introduced into the fishery; while it is expected that in a year or two hence only motor boats will be used in the fishery.

On the introduction of motor boats into this fishery many people were adverse to their use in this connection, believing that the noise created by the motor would frighten the herring out of the Bays but such has not happened; but owing to the expediency with which work can now be done with the use of a motor for propulsion the catch per motor boat is larger than those boats engaging in the fishery which are not so propelled. The fisheries Report has this to say with regard to the use of motor boats in the herring fishery:—

"Motor boats are used largely at Bay of Islands in prosecuting the herring fishery, and the row boat will soon be a thing of the past, especially along this section of the coast. The people of Bonne Bay and Bay of Islands are enterprising, and are now largely using the motor boat in prosecuting the codfishery."

The following is a comparative statement of the quantities of herring purchased and exported, from Bay of Islands and Bonne Bay during the past four years."

1912—45,210 Barrels Salt Bulk Herring.
—14,173 Barrels Pickled Herring.
11,482 Barrels Frozen Herring.

70,865 Valued at $120,257.00.

1913—32,339 Barrels Salt Bulk Herring.
9,213 Barrels Pickled Herring.
24,002 Barrels Frozen Herring.

65,554 Valued at $175,378.00.

1914—39,805 Barrels Salt Bulk Herring.
8,282 Barrels Pickled Herring.
12,435 Barrels Frozen Herring.

60,522 Valued at $151,669.00.

1915—49,926 Barrels Salt Bulk Herring.
12,964 Barrels Pickled Herring.
15,991 Barrels Frozen Herring.

78,881 Valued at $242,631.00.

The following is a list of vessels that took herring cargoes from Bay of Islands and Bonne Bay during the fall fishery of 1915.

Schooner Atlanta, 440 barrels bulk; 33 barrels Pickled; Wood Island for Gloucester.

Schooner Kineo, 953 barrels bulk; 100 barrels Pickled; Bonne Bay for Gloucester.

Schooner Donald Creaser, 1,631 barrels bulk; 148 pickled; barrels pickled; Bonne Bay for Gloucester.

Schooner Clintonia, 1,560 barrels bulk; 140 barrels pickled; Bonne Bay for Gloucester.

Schooner Susan Inkpen, 1,300 barrels bulk; 6 barrels pickled; Bonne Bay for Gloucester.

Schooner James Douglass, 1,650 barrels bulk; 200 barrels pickled; Bonne Bay for Gloucester.

Schooner Harry Nickerson, 1,050 barrels bulk; 348 barrels pickled; Bonne Bay for Gloucester.

Schooner Blanche, 1,100 barrels bulk; 80 barrels pickled; Bonne Bay for Gloucester.

Schooner Athlete, 1,500 barrels bulk; 106 barrels pickled; Bonne Bay for Gloucester.

Schooner Judique, 1,275 barrels bulk; 106 barrels pickled; Bonne Bay for Eastport.

Schooner Gladiator, 1,180 barrels bulk; 120 barrels pickled; Bonne Bay for Bucksport.

Schooner John H. Hammond, 1,400 barrels bulk; 94 barrels pickled; Bonne Bay for Gloucester.

Schooner Muriel B. Walters, 1,325 barrels bulk; 190 barrels pickled; Bonne Bay for Gloucester.

Schooner Vera Himmelman, $1,300 barrels bulk ; 200 barrels pickled; Bonne Bay for Gloucester.

Schooner Donald Hollet, 1,600 barrels bulk; Woods' Island for Gloucester.

Schooner Atlanta, 909 barrels bulk; 61 barrels pickled; Bonne Bay for Gloucester.

Schooner Tatler, 2,150 barrels bulk; 118 barrels pickled; Bonne Bay for Gloucester.

Schooner Gladys Smith, 1,215 barrels bulk; 208 barrels pickled; Bonne Bay for Gloucester.

Schooner Arkona, 1,575 barrels bulk; 125 barrels pickled; Bonne Bay for Gloucester.

Schooner Ingomar, 1,400 barrels bulk; 125 barrels pickled; Bonne Bay for Glocuester.

Schooner Gossip, 1,346 barrels bulk; 91 barrels pickled; Bonne Bay for Gloucester.

Schooner Alfarata, 1,300 barrels bulk; 150 barrels pickled; Bonne Bay for Gloucester.

S. S. Seal, 2,117 barrels pickled; Bonne Bay for Halifax.

Schooner Governor Russel, 1,267 barrels bulk; 160 barrels pickled; Bonne Bay for Gloucester.

Schooner Hiram Lowell, 1,250 barrels bulk; 100 barrels pickled; Bonne Bay for Bucksport.

Schooner Margaret, 1,250 barrels bulk; 80 barrels pickled; Bonne Bay for Gloucester.

Schooner M. M. Gardner, 1,281 barrels bulk; 135 barrels pickled; Bonne Bay for Gloucester.

Schooner T. M. Nicholson, 1,500 barrels bulk; 100 barrels pickled; Bonne Bay for Bucksport.

Schooner Rose Dorothy, 1,500 barrels bulk; 100 barrels pickled; Bonne Bay for Gloucester.

Schooner Montana, 1,100 barrels bulk; 63 barrels pickled; Bonne Bay for Gloucester.

Schooner W. C. Mackay, 1,560 barrels bulk; 114 barrels pickled; Bonne Bay for Gloucester.

Schooner Annie Parker, 200 barrels bulk; 75 barrels pickled; 907 barrels frozen; Bonne Bay for Gloucester.

Schooner Bohemia, 1,220 barrels bulk; 83 barrels pickled; Bonne Bay for Gloucester.

Schooner Lizzie Griffen, 840 barrels bulk; 235 barrels pickled; Bonne Bay for Bangor.

Schooner Gladys and Lillian, 350 barrels bulk; 639 barrels pickled; Bonne Bay for Halifax.

Schooner Clintonia, 1,576 barrels bulk; 172 barrels pickled; Bonne Bay for Gloucester.

Schooner Agnès, 975 barrels bulk; 35 barrels pickled; Bonne Bay for Gloucester.

Schooner Republic, 160 barrels bulk; 65 barrels pickled; 600 barrels frozen; Bonne Bay for Gloucester.

Schooner Henry L. Montague, 80 barrels pickled; 800 barrels frozen; Bonne Bay for Halifax.

Schooner Kineo, 220 barrels bulk; 62 barrels pickled; 600 barrels frozen; Bonne Bay for Gloucester.

Schooner Evelyn V. Miller, 200 barrels pickled; 300 barrels frozen; Bonne Bay for Lunenberg.

Schooner Wm. C. Smith, 130 barrels pickled; 400 barrels frozen; Bonne Bay for Lunenberg.

Schooner Mary LeCosta, 250 barrels bulk; 50 barrels pickled; 550 barrels frozen; Bonne Bay for Gloucester.

Schooner Titonia, 60 barrels bulk; 75 barrels pickled; 450 barrels frozen; Bonne Bay for Gloucester.

Schooner Ida M. Clarke, 50 barrels bulk; 462 barrels pickled; 400 barrels frozen; Bonne Bay for Sydney.

S. S. Sable, 831 barrels pickled; 65 barrels frozen; Bonne Bay for Halifax.

Schooner Senator, 678 barrels bulk; 104 barrels pickled; Bonne Bay for Gloucester.

Schooner Norman P. Cullen, 495 barrels pickled; Bonne Bay for Halifax.

Schooner Associate, 892 barrels pickled; 86 barrels frozen; Bonne Bay for Gloucester.

Schooner Corsair, 375 barrels pickled; Bonne Bay for Gloucester.

Schooner Lillian, 481 barrels bulk; 591 barrels pickled; Bonne Bay for Gloucester.

Schooner Douglas Adams, 900 barrels frozen; Bonne Bay for Halifax.

Schooner Romance, 80 barrels pickled; 900 barrels frozen; Bonne Bay for Gloucester.

Schooner Senator, 117 barrels pickled; 872 barrels frozen; Bonne Bay for Gloucester.

Schooner Pollyana, 100 barrels bulk; 71 barrels pickled; 600 barrels frozen; Bonne Bay for Gloucester.

Schooner J. J. Flaherty, 100 barrels bulk; 71 barrels pickled; 350 barrels frozen; Bonne Bay for Gloucester.

Schooner Maxine Elliott, 180 barrels bulk; 320 barrels pickled; 350 barrels frozen, Bonne Bay for Gloucester.

Schooner Independence, 510 barrels bulk; 125 barrels pickled; 867 barrels frozen; Bonne Bay for Gloucester.

Schooner J. D. Hazen, 330 barrels bulk; 100 barrels pickled; 650 barrels frozen; Bonne Bay for Gloucester.

Schooner Gladiator, 80 barrels bulk; 125 barrels pickled; 828 barrels frozen; Bonne Bay for Bucksport.

Schooner J. B. Young, 104 barrels pickled; 750 barrels frozen; Bonne Bay for Lunenberg.

Schooner J. R. Bradley, 25 barrels pickled; 750 barrels frozen; Bonne Bay for Gloucester.

Schooner Squanto, 80 barrels pickled; 760 barrels frozen; Bonne Bay for Gloucester.

Schooner Athlete, 72 barrels pickled; 606 barrels frozen; Bonne Bay for Gloucester.

Schooner Elizabeth N., 225 barrels bulk; 100 barrels pickled; 850 barrels frozen; Bonne Bay for Gloucester.

Schooner Regina, 270 barrels bulk; 150 barrels pickled; 800 barrels frozen; Bonne Bay for Gloucester.

Total, 49,926 barrels bulk; 12,964 barrels pickled; 15,991 barrels frozen.

In addition to the fishery at Bay of Island and Bonne Bay, there were last year several thousand barrels of herring caught and shipped from Notre Dame Bay. The fishery in this district was never prosecuted much before last season, for commercial purposes, and hence there were no preparations made to secure the returns of that fishery; so that it is impossible to give the exact amount caught; though it is estimated to be about 20,000 barrels.

A note worthy feature in connection with our herring, was the return, last year, in considerable quantity, of the herring to the Labrador coast. About twenty years ago herring deserted that coast entirely, and till last year were never seen again there. These herring acquired a world famed reputation both for size and taste, and were much sought after in all the first class markets, so that if they are returning again there in large quantity, this will very probably become a most important branch of this fishery.

P. Jo. FitzGerald, chief Inspector of Pickled fish for Newfoundland in his annual Report to the Minister of Marine and Fisheries says with regard to the unique opportunity now open to Newfoundland to develop this great industry:—"This, the chance of a lifetime, should in itself be an incentive sufficient to induce curers, packers, and exporters to take this matter up in all earnestness which would tend to bring about a unanimous desire for the introduction of legal and compulsory rules and regulations, whereby our herring industry under improved cure, be made to secure, and keep pace with the general advancement which has taken place in those countries where this pickled herring industry has been made a study of on a scientific, and practical basis. And should this be done, success and improvements are bound to accrue.

The Lobster Fishery.

This fishery is the one industry which has been adversely affected by the war. Before the war the total pack of this commodity was exported to Germany, and a very high price was received for the product; exportation to Germany at the present time is, of course, out of the question, and hence the decline in the price of the fish, which has since reacted upon the number who engage in the fishery.

In 1914 just before the outbreak of the war lobsters had reached an unprecedented price $27.00 were being offered by representatives of German firms, at St. John's, and it looked as if the price would eventually reach $30.00 per case before the end of the year. With the war came the great slump in price. One week after the war lobsters could be bought for $8.00 per case; since then the price has been recovering, and the present local price is $13.00 per case.

Since the war the prosecution of the fishery has been declining. The total difference in capital and enterprise engaged in the industry for 1914, and 1915 is as follows:—

Year	Licenses	Men	Traps	Lobsters	Cases
1914 . .	2,463	4,346	227,194	2,574,736	11,023¼
1915 . .	1,764	1,764	73,245	1,210,549	5,578½

During the past ten years, the size of the annual catch has been decreasing year by year, despite the fact that previous to 1915 increasing numbers of men were yearly engaging in the industry. A system for the conservation of the fishery was advocated each year, but nothing practical was done till 1913 when a method of propagation was introduced, this has borne good results but the negligable number compared with former years who are engaging in the fishery this year will be of great benefit; so that while temporarily lobster packers have been severely embarrased by the outbreak of the war; its ultimate effects will be highly beneficial for the conservation of the fish in these waters. The system of lobster propagation inaugurated in 1913 which is having abundant results makes it compulsory for every egg bearing lobster to be returned; the actual number placed into the sea is declared on oath.

J. D. Dee local Inspector of the Lobster fishery, anent this system, says in his Report for 1915:—I have much pleasure in reporting that as result of our propagation system there is a very clear indication that an improvement is taking place in this fishery, helped to some extent by the war conditions that have been existing for the past two years, and which had such a disastrous effect on the price of these goods in the European markets. The total number of egg bearing lobsters purchased from the fishermen during the past season was 41,797. A strict account consistent with the means at our disposal, was kept of the different sizes of these lobsters, and shows an average of a fraction under ten inches. Those lobsters can very well be estimated to yield 20,000 eggs each or a total of 836,000 eggs saved to the stock, together with 42,000 lobsters of a mature and productive age. I may be permitted to point with pride that this simple system of propagation is already beginning to show beneficial results, and if continued will in a very few years put a different feature on this fishery."

Whale Fishery.

Factory	Whales	Quality	Gals Oil	Tons Bone	Tons Guano
Hawke's Hr. .	70	2 Humps	71,064,	131	50
		68 Finbacks			
Rose au Rue . .	69	47 Finbacks			
	69	5 Humps	40,303	50	107
Beaverton		19 Potheads			
	139		111,367	181	157

As compared with

Year	Whales	Gals Oil	Tons Guano	Tons
1908	396	420,846	532	507
1909	518	518,749	637	678
1910	584	416,831	559	618
1911	335	405,644	516	572
1912	289	400,552	417	655
1913	223	273,558	523	421
1914	161	150,146	256	80½

Salmon Fishery.

This fish though plentiful in Newfoundland waters, and moreover increasing of late, seemingly has not to date formed an industry, conducted to any extent on a commercial basis. Owing to the fact that the fishery has not been vigorously prosecuted little progress has yet been made both as to equipment, and in ascertaining the best places for fishing. From a commercial point of view it has only been prosecuted in connection with the lobster fishery. The Report of last year for this fishery is as follows:—

Salmon Pack.

District	Licenses	Nets	Men	Salmon	Cases
Twillingate	6	25	23	1,326	86
Fogo	7	27	32	3,598	261½
Bonavista	5	30	9	912	95
Fortune Bay . . .	67	161	138	12,505	818
Burgeo & La Poile	17	51	27	2,007	238½
St. Georges	8	41	16	10,023	75
St. Barbe	11	20	27	628	36

In addition to this amount there were packed during the year 4,514 tierces of smoked salmon, valued at $74,916.

Also there were exported to Canada and United States 197,446 pounds of fresh salmon, which was valued at $16,918, in comparison with 251,182, and 121,794 in 1914.

Report of the Newfoundland Sealing Fleet for 1915.

Steamers	Nett Tons	Men	Total Seals	Nett Weight	Nett Value	Men's Share
Bonaventure	401	270	25,985	575¼	$52,586	$64.68
Florizel . .	1,980	269	2,592	71¾	5,933	7.35
Nascopie .	1,004	270	1,227	23	2,151	2.65
Neptune. .	465	203	60	1	106	. . . . .
Adventure	829	270	258	5	505	. . . . .
Bellaventure	466	270	347	5	545	. . . . .
Beothic . .	464	270	2.845	53	4,964	6.10
Erik	461	184	387	16	1,114	2.00
Diana	290	162	486	16	1,148	2.35
Viking . . .	276	190	462	13	1,047	1.83
Terra Nova	450	203	2,851	78	6,750	11.02
Etagle . . .	418	201	9,306	176¾	16,243	26.80
Bloodhound	314	175	208	5½	385	. . . . .
1915 Total	7,878	2,932	47.004	1,069	$93,479	
1914 Total			233,719	5,347	$497,979	
Decrease			186,715	4,322	$404,500	

Says the Report:—This has been the worst Steam Seal Fishery on record. Continuous easterly winds during February and the early part of March drove the seals near the land in the vicinity of Cape St. John Gull Island and the Horse Islands, at the beginning of March, and rafted the ice outside the patch to such a degree, as to make it impossible for steamers to reach the whelping ice till about 10th of April. When some of the ships got clear of being jammed, they found the seals had taken to the water. Two ships were severely injured in the ice and had to be towed to port.

A notable incident was the coming of two Norwegian Steamers which engaged in this fishery, in the Gulf. This was commonly regarded with a great deal of disfavour by our local sealers, as it was intended that if the voyage would prove successful for the two engaged, they would be the vanguard of a large Norwegian sealing fleet each year to these waters; but luckily, for local interests, the voyage proved a failure for the Norsemen as well as for the rest of the fleet, and it may be of interest to note that they did not repeat the venture this season.

The Seal Fishery will benefit on the whole considerably by the steamers missing the 'patch' in 1915, as there were many indications tha the fishery was beginning to decline, but so profitable was the voyage that the strongest opposition was manifested to close season legislation, by those who sent ships to the fishery, and also by the fishermen themselves who generally made a 'fine thing' out of it, and were reluctant to voluntary deprive themselves of a good "bill' which the voyage nearly always brought.

Turbot Fishery.

This industry was engaged in last year for the first time for commercial purposes. In all the bays this fish are very plentiful, and previous to last year were considered in the nature of a pest by many fishermen who found them sometimes filling their trawls.

They were shaken off the trawls back into the sea. Last year a Gloucester firm sent an agent, Capt. Piercy to the island to buy turbot; Capt. Piercy offered $5.50 per brl., and with this inducement numbers engaged in the fishery. More than 10,000 barrels were caught, and sold, and this was done nearly all in one Bay, Trinity Bay. As yet, however, the people know very little of the many factors which enter into the preparation, and cure of this article, hence there is little or no interest taken in following the industry, although the fish are to be found in abundance in most of the deep watered bays and inlets of the island.

Caplin.

Caplin is a fish indigenous to Newfoundland waters. It is about seven inches long, and 2¾ inches in girth. About the beginning of June it appears off the Newfoundland coast in great schools, and in a few days it enters the bays and coves all around the coast in the same great body, which as it always moves just below the surface of the water covers the sea black. In a day or two it reaches the beaches of the harbours, and there rests high and dry upon the sand. One who has never seen this great phenomena would find it hard to believe, that at this period in the night time the sea seems a great wave of phosphorescence, as the countless millions roll upon the sand. The people go down to the beaches and dip up in nets and buckets from the sea all they want for their purposes. The caplin has but one use as far as the fisherman is concerned; he uses it for bait for codfish, and an excellent bait it is. It is also used by the people for fertilizing purposes, and everybody takes from twenty to one hundred barrels, and from the beaches they are carted, often alive, to be strewn over the fields. When cooked the caplin is a delectable food, and will be preferred as an article of diet to either salmon or herring. It is easily to be appreciated why there is no foreign demand for for this fish, when it is understood that the fish is not known outside of Newfoundland, while there has yet been no effort been made to advertise it as an edible outside the country.

If a market could be found for this fish at a profitable price there is actually no limit to the quantities which could be obtained yearly. As a matter of fact the firm of———, of Norway who pack largely of sardines were about to send an agent to Newfoundland in the summer of 1914 to advise as to the practicability of establishing a factory in the country for the "putting up" of caplin in the same method as sardines. The outbreak of the war postponed indefinitely the activities of that firm in this direction.

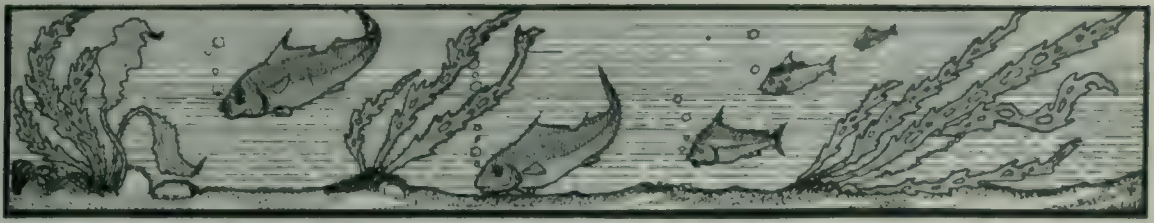
The St. Pierre Fishing Fleet.

The war of necessity deeply affected the St. Pierre fishery for 1915. There were less engaged in fishing from St. Pierre and Miquelon last year than in any other year in the history of that fishery. Practically the entire crews of the fishing vessels which fished from St. Pierre were members of the French Navy, and those who were left to finish the voyage of 1914, were called to the colours directly at the end of this fishery. In the spring of last year a circular of the Comite Central des Armateurs de France was published, giving permission to three thousand of the "registered seamen" at Brest, and some other ports, awaiting active service to sign on for the St. Pierre bank fishery for the year. These number of men crewed about eighty bankers, steam trawlers, and other vessels. The result of the fishery was on the whole successful for the year. Another noteworthy incident in this connection, was the repeal last year of certain prohibitary measures which forbade the exportation from Newfoundland of fish food or other products to St. Pierre; and as a result considerable quantities of these commodities—especially herring—were exported there last year, and from there the bulk of this article will find consumption in France.

Although the Newfoundland fisheries on the whole were highly profitable to the Colony last year, yet there is much yet to be accomplished, in the nature of improving the pack, obtaining more knowledge of markets, and in securing more knowledge as to the extent of our fisheries. To secure the latter, a steamer with fish scientists, and proper apparatus on board will be necessary; but while the Colony prefers to 'paddle its own canoe', in political affairs it is doubtful whether this it will be ever able to afford to so provide itself.

Prof. Wiser: What effect does the moon have upon the tide?"

Sweet Co-Ed: "None! It affects only the untied."



FISH --- IN SEASON AND OUT

How to Select and Cook It.

By CHARLES S. STORM, of the Blackford Fish Markets, New York City.

(In Housewives League Magazine).

The housewife who follows the fish market closely and knows how to buy each fish in its own season need never complain of having to eat frozen fish. Each month of the year has its own special variety of fish and it is only necessary to keep track of the different seasons to have fresh fish all the year around.

The purchaser who goes to the fish dealer and demands a certain kind of fish, regardless of season, because someone in the family has expressed a desire for it, need not feel abused when the dealer hands her a cold storage fish. If she wants to have fresh fish she must not be too particular as to the kind, but take what the season offers.

Fish in Season.

The best way to buy fish is to order whatever is on the market that day, and not enter the store with any pre-conceived notion that you want a certain kind of fish. If you order whatever is on stock you are pretty certain to get a good, fresh fish.

It is not a difficult matter for the housewife to keep in mind the seasons in which the most common varieties of fish come to market.

On the East coast, bluefish and fresh mackerel are in season from April until October and butter-fish, porgie, sea bass and kingfish from May until September, while weakfish lasts one month longer, being in season from May until October.

Spanish mackerel can be bought fresh during September and October. Smelts and scallops are winter fish, appearing on market in October and lasting until April. Shad is fresh from January to June.

Cod, flounder, halibut and salmon are in season all the year around.

We seldom get any fish, of whatever variety, until its spawns. When ready to spawn, the fish leave the deep-sea water and run up into the shoaler waters in great quantities, where they are caught with nets and lines.

Local Prejudice About Fish.

All fish are good to eat, the varieties which are popularly supposed to be good eating, depending entirely upon the locality. In the South, certain varieties of fish are eaten which would not be touched in the North, and vice versa.

One reason why northerners do not eat much southern fish is that it does not keep so long as the northern and is apt to be spoiled when it reaches northern markets. Packing facilities are not so good in the South as in the North, since there is no natural ice and the artificial ice does not keep so well, and for this reason southern fish cannot be kept in good condition for a long time.

We can obtain any variety of fish all the year around, if we want it, by buying it frozen, and in many cases the frozen fish is almost as good as the fresh.

Whether frozen fish is good or not depends largely upon its condition when packed.

First class dealers who cater to a critical and exacting trade can be depended upon to supply a very good grade of frozen fish, no matter how out of season it is.

Such dealers, for the sake of being sure their fish will keep well, will pay a cent more a pound for their fish than the market demands and buy a whole boatload of fish which has all been caught at one time. If they bought a supply which had been caught at different times and put it all in the freezer together, some might spoil before the rest and taint the whole lot.

Codfish is one of the most useful and popular fishes on the market. It is good at any time during the year and is looked upon as a standby in many communities.

It has a better flavor if not served entirely fresh but allowed to stand on the ice two or three days before being eaten. Being a large fish, it can be put to a variety of uses. Steak codfish usually weighs about twenty-five pounds.

Many people make the mistake of throwing away the head of the codfish. This should not be done, as the head makes delicious chowder. The head can also be made very good by removing the eyes and frying it in butter.

How to Select Fish—Rely on Dealer.

It is almost impossible to judge of the freshness of a fish in the store. Some people judge by the appearance of the eyes, some by the color of the gills, some by feeling of the fish and some by the smell.

As a matter of fact, none of these tests is infallible. Fish which has been kept as long as three weeks sometimes retains the color in the gills and if the fish has been shipped by freight or express it is quite apt to become jammed in the bottom of the box and cannot then be judged by its firmness to the touch.

As a rule, shad can be judged by the brightness of its gills and cod by its eyes.

Nor is smell a sure guide to the freshness of fish. Some varieties have a bad smell when fresh and some do not smell badly even when they are old.

The best way for the housewife to do is to go to a reliable dealer and impress upon him the fact that she wants the freshest fish he has. Give him a trial—if it is put up to him he is quite apt to send around a fresh fish.

The main thing not to do is to insist on having a certain kind. If you do this your dealer will no doubt furnish it to you, regardless of whether it is fresh or old.

Some housewives object because the slime is not washed off the fish when it comes to them. The slime that surrounds fish is one of the housewife's best protections againt bad fish. If the slime is washed off the odor is removed with it, and even if the fish is in bad condition it will not have a noticeable smell.

When fish is exposed to the air—as in the market stalls—the slime should never be washed off, as it is a very good preservative.

Should you buy a frozen fish the best way to thaw it is to put it in cold water, never let it thaw in the atmosphere.

Very few people understand how to cook fish. It is too often fried to death and is served dry and tasteless.

Fish should be cooked over a very hot fire and every means should be used to keep it moist and juicy and well flavored.

Fish in Season—Table of Reference for Housewives.

January—Smelts, Shad, Scallops.
February—Smelts, Shad, Scallops.
March—Smelts, Shad, Scallops.
April—Blue Fish, Fresh Mackerel, Smelts, Shad, Scallops.
May—Blue Fish, Butter Fish, Porgie, Sea Bass, Shad, Weak Fish, Fresh Mackerel, King Fish.
June—Blue Fish, Butter Fish, Porgie, Sea Bass, Shad, Weak Fish, Fresh Mackerel, King Fish.
July—Blue Fish, Butter Fish, Porgie, Sea Bass, Weak Fish, Fresh Mackerel, King Fish.
August—Blue Fish, Butter Fish, Porgie, Sea Bass, Weak Fish, Fresh Mackerel, King Fish.
September—Blue Fish, Butter Fish, Porgie, Spanish Mackerel, Smelts, Sea Bass, Weak Fish. Fresh Mackerel, King Fish.
October—Blue Fish, Smelts, Weak Fish, Spanish Mackerel, Scallops, Fresh Mackerel.
November—Smelts, Scallops.
December—Scallops, Smelts.
Fish in season all the year around—Cod, Flounder, Halibut, Salmon, Haddock.

The above list of references will enable the housewife to tell at a glance what is the best fish to buy in any particular month, if she wants to make certain of procuring fresh fish.

The fish in season at any particular time is always the safest kind to buy for it is sure to be good and can be relied upon, almost invariably, to be fresh, not frozen.

FISH CHEAPER THAN MEAT AND A FINE FOOD

By EDITH CHARLTON SALISBURY,

(Director Domestic Science Department, Manitoba Agricultural College.)

"Eat fish and your brain will be bigger and stronger than that of your brethren who are meat eaters," was the advice given to the students of the last generation. "Substitute fish for meat in your diet on fast days," said the church fathers, if you would keep the desires of the body under control. Fish was said to be a brain food because it contained phosphorus, an element which enters into the composition of brain tissue.

It is generally considerably cheaper than meat. If fresh and properly cooked it is more easily digested and because it is less stimulating than red meat is better suited to the diet of the invalid. The rheumatic patient can eat fish when meats like beef, mutton and lamb will be denied to him. It is also well suited to the diet of children.

There are two general classes of fish, the fat and the lean. Salmon and herring are good examples of the first; white and cod belong to the class of lean fish. Fat fish are better broiled and served with an acid sauce, that is a sauce highly flavored with lemon juice, vinegar or tomatoes and seasoned with pepper or mustard. Lean fish may be boiled, baked, or steamed and served with a rich sauce which will increase the deficient fat and also add to the flavor. Because fish spoils easily they are always better flavored the shorter the distance from the water in which they are caught, to the table on which they are eaten. Not only should the transfer be short but the time in which it is made should be brief. In other words fish should be fresh when purchased and should be prepared for the table in as short a time as possible. It is not difficult to distinguish fresh fish from one that has been too long out of the water. Fresh fish have full, lifelike eyes, red gills, silvery, not slimy skin and scales, firm flesh and firm, not flabby tail. Fish that has been frozen should be cooked immediately after it has thawed; the flesh of frozen fish is never quite as firm as when freshly caught, neither is the flavor quite as agreeable.

There need be very little waste in fish, other than skin and bones, for there are various appetizing ways of serving "left overs." Bits left from the baked, steamed or fried white fish or cod may be broken up into flakes, reheated in a cream sauce for a supper dish, scalloped with potatoes or bread crumbs, or may be used cold as a salad, serving it with a dressing made of eggs, milk and vinegar. Amounts too small for preparing in any of the above ways may be rubbed through a sieve added to a thin white sauce, and seasoned carefully to make a tasty soup. In fact, there is such a wide latitude in the methods of serving fish that the housewife need never be at a loss and as long as fresh fish can be bought for from five to ten cents a pound less than meat the average table need not be without muscle making food.

In composition it is very similar to meat, though containing less protein and fat it has sufficient of both to satisfy the demands of the average individual.

Ask Your Dealer for—

SOME OF CANADA'S FOOD FISH WHICH DEALERS WOULD DO WELL TO BRING TO THE NOTICE OF THEIR CUSTOMERS, AND WHICH THE CUSTOMERS WOULD SAVE MONEY BY PURCHASING

Salmon, Pacific.

There are several species, of which the chinook, sockeye and cohoe are the most popular as food fish. The salmon is a sea fish spawning in fresh water and they enter the rivers in vast numbers in the Spring and the "run" continues during the summer until November. The salmon caught in the Spring is generally conceded to be the best, and though they are readily procurable at all seasons, yet they are most plentiful in April and throughout the summer. The greater part of the Pacific salmon catch is canned. Average weight of the fish is around 5 and 6 pounds.

Salmon, Atlantic.

Native to the Maritime Provinces of Canada, Labrador and Newfoundland—a favorite variety being the Gaspe salmon caught in the rivers of that county. There is a close season for Atlantic salmon extending from August 1st to April 1st, and though it is procurable at all seasons, yet it is most plentiful during June, July and August. The Atlantic salmon, similar to the Pacific variety, is a sea fish ascending fresh water rivers to spawn. Average weight is about five and six pounds.

Cod.

This is the principal commercial fish of the Atlantic, but common also in the Pacific. The cod fishery, next to the salmon, is probably the greatest in the world, and upon the Atlantic 'banks' off Newfoundland and Canada, many hundreds of vessels and thousands of men are engaged in catching cod. Cod is procurable all the year round but most plentiful during the summer months. The smaller variety known as snappers and mediums range from 3 to 5 pounds in weight: the larger sold as steak cod run from 6 to 30 pounds. A highly nutritious and economical food fish, which in addition to being sold fresh, is largely put up in dried, salted, flaked, shredded, boned, and thread-ed form.

Haddock.

A favorite food fish native to the Atlantic Ocean. Easily distinguished by the black line running from gills to tail on each of its sides. Average weight about 3 pounds. Procurable at all times but most plentiful from November to April. When smoked, it is known as Finnan Haddie, and largely consumed in this form.

Halibut.

One of the largest of the flat fishes and common to the Atlantic and Pacific Oceans. The greater part of Canada's halibut comes from the Pacific — about one-fifth only being caught in the Atlantic. The halibut is regarded as a superior table fish procurable at all times but most plentiful during the summer months. Halibut varies very much in size—the smaller variety known as "chicken halibut" averaging 7 to 10 pounds. The larger fish, which is every bit as good, is usually sold in steaks, and runs from 10 to 180 pounds.

Herring.

One of the commonest and most nutritious food fishes native to the Pacific and Atlantic Oceans. Plentiful at all seasons, but in best condition from July to October for Atlantic and November to February for Pacific varieties. Largely put up salted, smoked and cured. Average weight 8 oz. to 1 pound. A sea food, plentiful and cheap.

Herring, Lake.

A fresh water fish common in the Inland Lakes of Canada. Also known as Ciscoes and in addition to being sold fresh are smoked and salted. A fish of high food value, cheap and easily procurable during the summer months. Average weight 1 pound.

Mackerel.

An exceedingly piquant and dainty food fish native to the Atlantic Ocean. At times they are very scarce and high priced, but during good seasons, plentiful and cheap. They are procurable at all times, but more readily during the Summer and Fall months. Average weight from 8 oz. to 2 pounds. Can be purchased fresh during season and salted at all times.

Whitefish.

A fresh water fish exceedingly plentiful in the Inland Lakes of Canada. Easily procurable from April to December. This fish is the most important of Canada's fresh water fishes, cheap and of high food value. Plentiful in the Spring and Fall. Average weight 2 to 3 pounds.

Trout, Lake.

Largest of all the trouts and native to the Inland lakes of Canada where the lake fishing for trout is exceeded only by the whitefish. Highly esteemed as a food fish. The lake trout is in season from May 1st to November 1st, and attains a size of from 1½ lbs. to 18 and 21 lbs — the Fall fish running very large.

Trout, Brook.

The famous fish of the angler and a fresh water fish native to streams all over Canada. In size it varies —the average being just under a pound. In season from May to September. One of the most delicate and popular fresh water food fish.

Pickerel.

A fresh water fish also known as Dore, Pike-Perch, or Wall-eyed Pike found in great numbers in the Great Lakes. The flesh is firm, flaky and white, and is highly esteemed as a food fish. Average size around 7 pounds. Pickerel is in season during the summer months.

Pike.

A common fresh water fish abundant in the inland waters of Canada. In season during the summer months. Average weight 7 and 8 pounds. Much in favor as a food fish.

Sturgeon.

This fish is native to both coasts and the rivers and inland lakes of Canada. It is a good food fish procurable at all seasons but particularly in the summer months. Being free from many bones it is a good fish for slicing and cutlets. The roe of the sturgeon is used for making caviare. Average weight 10 pounds. Some weigh as much as 200 lbs.

Alewife.

Sometimes known as Branch Herring in Ontario and Gaspereau in Eastern Canada. It is native to salt and fresh water. The sea species enters fresh water rivers to spawn and is captured in abundance. In season from April to June. In addition to being sold fresh, alewives are extensively salted, and are largely sold in this way.

Shad.

A sea fish which ascends fresh water rivers and brackish bays to spawn, and one of the most important and palatable of Canadian food fish. The shad strike our rivers in the Spring and are most plentiful during May and early June. Average weight about 3 pounds.

Black Bass, Large Mouthed and Small Mouthed.

A fresh water fish native to the inland waters of Canada and much beloved by anglers for its gamey qualities. Both species are favorite food fishes. The average size is from 3 to 4 pounds and is readily procurable in the market from June to July.

Bullhead.

A fresh water fish famous under a dozen different names—Bullhead, Bullpout and Catfish being the most common. The Bullhead is of no mean value as a palatable foodfish. Procurable readily during the summer months. Average weight three to four pounds.

Perch.

The commonest variety known as the yellow perch is native to the inland waters of Canada. The perch is a cheap and palatable food fish — particularly adapted for frying — and in season during the summer months. Average weight about 8 oz.

THE FISH DEPARTMENT OF STANFORD'S, LTD.—ONE OF MONTREAL'S FIRST-CLASS STORES.

Lobster.

A crustacean native to the Atlantic coast. Subject to close seasons in various localities but procurable from November 15th to August 10th. The lobster is regarded more in the light of a luxury rather than a regular article of sea food and bad weather on the lobster grounds affect the supply and the market price to a very large extent. When scarce in a live state, it usually is readily procurable in cans.

Grass Bass.

Also known as the Calico Bass—a fresh water fish native to the inland lakes and rivers of Canada. A good pan fish procurable throughout the summer months but best in the spring when the water is cold. Average weight is around 8 oz.

Hake.

A sea fish native to the Atlantic Ocean and much esteemed as food. Procurable in the market at all times but particularly in the summer months. They are in the best condition in the Fall. Average size 3 to 7 pounds and over.

Smelt.

A small and very delicate food fish native to the Atlantic Ocean. The smelt seldom exceeds a pound in weight and averages 4 and 5 ozs. The smelt is also found in the Pacific. In season from December to March.

German Carp.

An exceedingly common fish in the Great Lakes of Canada. It is procurable throughout the summer months. Average size is around 3 and 4 pounds.

Flounder.

An exceedingly common and readily procurable flat fish of good eating quality. Seasonable during the winter months. Average weight is from 1 to 2 pounds. Native to the Atlantic and Pacific Oceans.

Tomcod.

A common and palatable little fish similar in appearance to the cod. It is sometimes known as frost-fish and is most abundant in early winter. It is procurable throughout the year but mainly during the winter. In size it seldom exceeds a foot in length. Native to the Atlantic Ocean.

ONE OF THE STALLS AT MONTREAL'S CENTRAL FISH MARKET

Swordfish.

A remarkable fish native to the Atlantic Ocean. Swordfish has only been recognized as a valuable food of late years and is now regarded as one of the most palatable of salt water fishes. The flesh is white, free from bones, and with a taste not unlike veal. The swordfish attains a weight ranging from 60 to 350 pounds, and is sold in the market in chunks and steaks. In season during the summer months.

Cusk.

Another member of the cod family and an exceedingly fine food fish. The flesh is white and firm. Cusk is a favorite fish in the United States and is largely sold in a filleted state. As smoked fillets, cusk holds a ready market as a choice article of diet. Average weight, 3 to 5 pounds.

Butterfish.

A small Atlantic fish procurable in our markets during the summer. It is sometimes known as the Dollar Fish and makes a palatable dish. Average weight about 4 oz.

Sucker.

A common river and lake fish seasonable in the Spring. Not of high food value. Average weight 2 to 3 pounds.

Eels.

Eels are common all over Canada. A fresh water-fish of high food value. Sold fresh during the summer but largely salted.

Skate.

A common fish in the Atlantic but not appreciated as sea food by Canadians. Skate fins are esteemed a delicacy in Great Britain and a good market exists for them.

Oysters

are taken in October and November; but as oyster culture is now being undertaken on a large scale they will soon be available during several months in the year.

Little-Neck or Hard-Shell Clams.

are taken in May, June and September. Long-Neck or Soft-Shell Clams are taken all months in the year.

Sea Mussels

are available during the whole openwater season.

Pollock.

A salt water fish native to the Atlantic and one of the Cod family. It is extensively salted and dried for export. Fresh pollock is an exceedingly cheap and palatable fish food and is procurable at all times but particularly during the summer and fall. Average weight, 3 to 4 pounds.

Canada's Cured and Prepared Fish

Salmon.

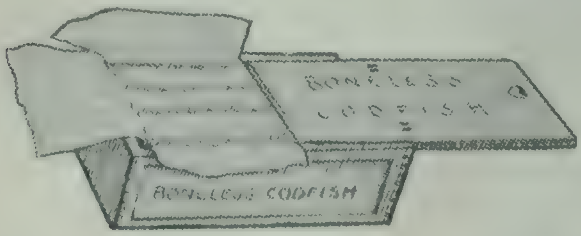
Foremost in this particular line of fish foods comes British Columbia canned salmon. Over one million cases of this product valued at nearly seven million dollars were packed in British Columbia last year and largely exported to foreign countries. Salmon is packed in 1 lb. and ½ lb. tins, tall and flat. The Sockeye is considered the finest quality. Other grades in their order are Red Cohoes, Pink Salmon and Pale Salmon —the two latter being very cheap. Atlantic Salmon is also canned but only to a minor extent. In addition to being canned, salmon is extensively dry salted, mild cured and smoked.

Lobsters.

This delicious shellfish is usually put up in 1 lb., ½lb. and ¼ lb. flat and tall tins. A portion of the lobster, not put up in the regulation canned lobster, and known as Lobster Tomali, is a very delicious preparation and may be procured in small tins. For the rapid preparation of salads and during seasons when fresh live lobsters are scarce and expensive, the canned article is indispensible.

Codfish.

This well-known sea fish is prepared and preserved in many different ways. The commonest form is in the shape of dried salt cod which is prepared by splitting the fish open, pickling it in salt and brine and drying it in the open air and sun or by means of steam heat. Many tons of dried cod are exported to Europe, the West Indies and South America, where it is a staple food. Codfish is also packed in barrels pickled in salt and brine. For the fine retail family trade codfish is very largely prepared as boneless fish, shredded cod, codfish strips, threaded cod and skinned codfish. The dried salt cod is taken, bones extracted, skin peeled off, the choicest portions shredded or flaked and packed in neat wooden boxes or parchment cartons. For the preparation of many fish dishes, codfish preserved in this manner, is invaluable to the chef and housewife. Fresh codfish can also be procured in cans.



Haddock.

Haddock is also prepared similar to dried salt cod, but this fish is pre-eminent when put up in the smoked state known as Finnan Haddie. Under this name the fish is famous all over the world and an immense business is done in Canada with this particular preparation. Fresh haddock is taken, carefully cleaned and washed, given a light pickle, and suspended in racks within a sealed chamber over a smoke fire of hardwood for a number of hours. The smoking is done by experts who know just exactly how much smoking is required to prepare the fish properly. Packed in 15 and 30 lb. boxes, finnan haddie is procurable anywhere in Canada an dis a favorite food which needs no extended description. Finnan Haddie is also prepared as fillets stripped of skin and bone and is delicious when put up in a canned state, either smoked or fresh.

Hake, Pollock and Cusk.

Three fine edible fish of the cod family. These fish are salted and dried in enormous quantities for export, but they can be procured in a smoked form similar to finnan haddie. They are also put up as boneless fish.

Sardines.

Canadian sardines can be procured in a pickled form but packed in cans and olive oil is the most popular form. In the opinion of many people Canadian sardines are preferable to the article imported from Europe.

Eels.

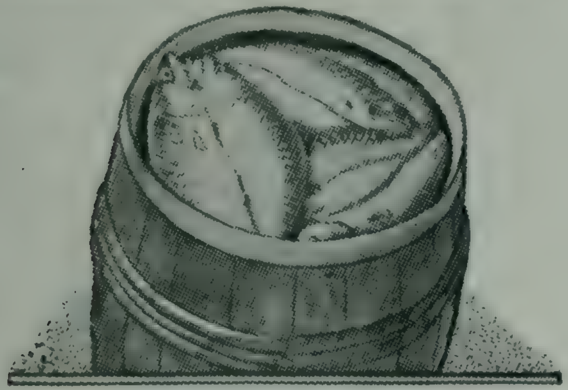
In the Province of Quebec, eels are salted and smoked and command a ready market.

Herring.

This tasty fish is prepared in a number of ways in Canada and should command a larger market than it does. As herring pickled in salt and brine it is put up in barrels, half-barrels and small kegs. Split and smoked it is marketed as bloaters and kippered herring, and skinned and boned it is smoked and packed in small boxes as boneless smoked herring. In the latter state it is often known as "Digby Chickens." As a cheap and tasty food, herring is hard to beat. Both the Pacific and Atlantic varieties of herring are prepared in the ways enumerated above, and the fresh water Lake herring is also pickled and in a smoked state commands a ready market as Ciscoes. In cans, herring is packed as kippered herring, plain or in tomato sauce.

Mackerel.

This choice sea fish is, at the present time, only preserved by salting and pickling. Salt and pickled mackerel is put up in barrels, half barrels and pails, containing 20 pounds. Barrels contain 200 lbs. net.



Fillets of Fish.

Fillets of fish are made from haddock, cod and cusk. The choicest parts of the fish are taken, stripped of skin and bone, given a light pickle and smoked similar to finnan haddie. Smoked fillets are in great demand —not because of their tastiness but from the ease by which they are prepared for the table, and also from the fact that there are no bones in them.

Halibut.

This splendid fish—the King of Atlantic sea fishes—is preserved by a process known as fletching. The halibut is sliced lengthwise, given a light salting and smoked. Halibut fletches or flitches command a ready market in the United States but Canadians have not yet realized the good qualities of flitched halibut. Pacific halibut is also fletched. Halibut can also be procured packed in cans.

Tongues and Sounds.

The thick tongue of the cod and the sound — a glutinous substance which lies along the backbone of the fish — is put up in salt and pickle in barrels and pails. Fried or boiled, they are a particularly delicious and tasty food. The sounds of hake are largely dried and used for making isinglass and glue.

Cod Liver Oil.

The pure cod liver oil procured from the livers of the fish is too well-known in the medicinal sense to require much description. Quite a large business is done in cod oil in Canada — the bulk of the oil being used for tanning leather. Other by-products in which fish feature are in the preparation of fertilizers and glue.

Fish Eggs.

Otherwise known as roes and peas. The roes of shad, haddock and cod, are to be procured in a smoked and salted form. The roe of the sturgeon is especially valuable and is prepared into the world famous caviare.

PORT OF MANY SHIPS.

"It's a sunny pleasant anchorage, is Kingdom Come,
Where crews is always layin' aft for double-tots o' rum,
'N' there's dancin' 'n' fiddlin' of ev'ry kind o' sort,
It's a fine place for sailor-men is that there port.
'N' I wish—
I wish as I was there.

"The winds is never nothin' more than jest light airs,
'N' no-one gets belayin'-pinned, 'n' no-one never swears,
Yet free to loaf an' laze around, yer pipe atween yer lips,
Lollin' on the fo'c's'le, sonny, lookin' at the ships.
'N' I wish—
I wish as I was there.

"For ridin' in the anchorage the ships of all the world
Have got one anchor down 'n' all sails furled.
All the sunken hookers 'n' the crews as took 'n' died
They lays there merry, sonny, swingin' to the tide.
'N' I wish—
I wish as I was there.

"Drowned old wooden hookers green wi' drippin' wrack,
Ships as never fetched to port, as never came back,
Swingin' to the blushin' tide, dippin' to the swell,
'N' the crews all singin', sonny, beatin' on the bell.
'N' I wish—
I wish as I was there.

—From Salt-Water Ballads, by John Masefield.

NOTES REGARDING CANADA'S FISHERIES DURING JULY.

(Furnished by the Naval Service Department).

Fogs which prevailed during the greater part of the month of July all along the southern and southwestern shores of Nova Scotia as well as in the western part of the Bay of Fundy greatly interfered with fishing operations and caused the landings of nearly all kinds of fish in Nova Scotia to fall below those for the same month last year. One of the vessels of the Lunenburg fleet, valued at $18,000, was lost and one man was drowned; while in Digby County the fog, together with high tides, was responsible for the loss of $1,000 worth of trawl gear, and one man lost his life in Yarmouth County. Considerable damage was also done to weirs on the New Brunswick shore of the Bay of Fundy by heavy seas on the night of the 21st instant.

Along the eastern coast of New Brunswick the weather was rough and stormy at the beginning of the month, resulting in the loss of some lobster gear and salmon nets, but the remainder of the month was fine and favorable for fishing. In Prince Edward Island, with the exception of the last week which was windy, fine weather prevailed; but in the Magdalen Islands high winds throughout the month prevented the taking of mackerel and cod in large quantities although these fish were plentiful around the Islands.

The salmon fishery was not so successful as in the previous month; salmon were reported scarce everywhere except in Cape Breton Island and the County of St. John, N.B., where large catches were obtained.

As compared with July, 1915, the lobster catch shows a decrease of about 3,000 swt., but Cape Breton Island alone shows a decrease of nearly 4,000 cwt., the catch in the Northumberland Strait being greater than for the same month last year.

Since the opening of the present lobster season on the 15th of November last until the end of July, there were packed 181,913 cases, while the total shipment in shell was 94,209 cwt. During the corresponding period in the preceding year there were 156,059 cases packed and 108.498 cwt. shipped in shell.

Scarcity of bait continues to be a serious handicap to the fishermen. Cod and hake were reported plentiful in many districts where the catches were nevertheless small on account of the difficulty of securing bait.

Dogfish were so abundant off the coast of Cape Breton Island that they prevented herring from coming inshore; consequently the herring catch there was exceptionally small. They were also a source of annoyance to handline cod fishermen in western Nova Scotia.

On the Pacific coast the weather has been unusually cold and wet and the sockeye run has been below the average in all districts. The catch of salmon is over 70,000 cwt. less than for the preceding July.

The following is the result of the fishing in Saguenay County, Que., for the month of June: Salmon, 3,724 cwt. landed, value $22,398; used fresh, 2,869 swt.; pickled, 570 cwt. Lobsters, 298 cwt. Cod, 61,029 cwt., value $84,144; used fresh, 291 cwt., green-salted, 807 cwt.;dried, 19,716 cwt. Herring, 2,269 cwt., value $2.564; used fresh, 59 cwt; pickled, 680 bbls.; used as bait, 80 bbls.; used as fertilizer, 5 bbls. Halibut, 35 cwt., value $390; used fresh. Clams, 30 bbls., value $30; used fresh. Launce, 300 bbls., value $100; used fresh. Total value of fish landed, $111,336.

SWORD FISHING.

Anywhere along the Atlantic seaboard from Cape Sable to Halifax harbor the swordfish besports himself. It was not always thus. The swordfish is a late comer. A few years ago the Americans showed a taste for this fish and the wily Nova Scotia fishermen proceeded to satisfy it. The swordfish belongs to semitropical waters, but he comes on our coast in the summer months and his presence is always hailed with rejoicing by the fishermen, who are now prepared to give him that reception his market value and the sport he brings merits. The swordfish comes in assorted sizes. . You may get one weighing one hundred and fifty younds. You may get one which pulls down scales at five hundred and fifty. You may get one or you may get a dozen.

With Harpoons.

When the swordfish appear there is something doing among the fishermen. The boats are overhauled. These are the ordinary fishing boats, mostly power boats. On the bow is erected what the fishermen call the "pulpit." It usually consists of a plank running out over the bow of the boat, and an iron rail protects the fisherman who stands there with harpoon in hand, from falling into the sea. The boats cruise off the land, generally about three miles, and the fish seem to run in schools. They are generally observed from the large fin on their back protruding out of the water. The boat is manoeuvred as to allow the man in the pulpit an opportunity to strike with his harpoon. This harpoon is made fast to a line which is again made fast to a small barrel. Immediately the harpoon is driven home the barrel is thrown overboard. This barrel again is made fast to the boat by means of a line, so that the swordfish cannot get away.

There is considerable sport in getting up alongside the fish. It requires skill and judgment to successfully harpoon the monster. Now, if you want a genuine thrill you should be in the boat when the fish receives the dirk. He does not show fight, but he makes you hold your breath and wonder what will happen next. For he has gone to the bottom, made a deep dive, and will come up again. Oh, yes, he will come up again, but where? He makes this dive in order to reach the bottom and there wriggle the harpoon out of his side. But the fisherman knows the depth of water and has arranged the line which fastened the harpoon to the barrels so that it will not allow the fish to go to the bottom.

He's a Fighter.

Finding himself foiled, the fish turns his sword surfaceward and comes up straight as a die. Nothing is going to stop him. If the boat is in the way, then he runs his sword through the bottom of the boat. This is no unusual occurrence. I have known him to do this several times in one day. One day at St. Margaret's Bay three boats were pierced inside of an hour and one fish drove his sword not only through the boat, but up the trouser leg of a fisherman, cutting his thigh.

The fishermen would rather chase swordfish than go to a dance, and that is saying something. It is a combination of sport and business, and the sport which brings dollars and cents in its trail is not to be despised.

MONK-FISH AS FOOD

A fish that brings, in the German markets, nearly four times as much per pound as fresh mackerel, and considerably more than haddock, is thrown away here by the fishermen who take it, because there is no market for it. Of this unfashionable fish nearly three thousand tons are marketed and eaten annually in Great Britain alone. Those who eat it praise it for its flavor, and yet we will have none of it. Evidently there are fashions in fish, just as there are in wearing-apparel. The name of this good food-fish, of which we wantonly throw away half a million pounds or so every year, is the goosefish. In The Forecast (Philadelphia, June), Marion Evans tells something about it. In both England and Germany, she says, it is highly valued, and people are willing to pay a good price for it. "Epicures demand it because it is delicious. Good housewives demand it because it is nutritious." Americans won't accept it for love or money. Why? Here is her answer:

"Evidently it is all a matter of fashion, not of logic, for those American epicures who have had an opportunity of tasting the goosefish are unanimous in its praise as a pleasure to the palate; while as for its nutritious value, Dr. Hugh M. Smith, of the United States Bureau of Fisheries, testifies to the fact that its steaks contain flesh-building material equal, pound for pound, to sirloin steak.

"In Continental Europe, and especially in the larger cities of Germany, the fish appears to be held in highest esteem, and notwithstanding it is commonly known in the Fatherland under the repellent name of Sea Teufel (sea-devil), it meets with very ready sale . . . The catch of the German North-Sea trawlers does not nearly supply the local demand, and large quantities have to be imported from Great Britain.

"As brought in by the North-Sea fishermen and exposed for sale in the British and Continental markets, the goose-fish, or angler, or monk-fish, as it is variously called, weighs about twenty-five pounds after it has been beheaded, eviscerated, skinned, and the fins trimmed off.

"It is a pity that the value of this fish is not recognized in America, and that they are at present entirely a waste product. Were they properly appreciated here, they would be a source of profit to the fisherman even at a minimum price, for they are taken quite without effort on trawl-lines and in nets, along with cod, haddock, and other popular food-fish, and are abundant all along the Atlantic shores of the United States and the adjacent ocean-bottom. To the consumer, they would constitute a cheap and very wholesome food.

"A former Commissioner of Fisheries, Dr. George Brown Goode, in his 'Natural History of Aquatic Animals,' noted that 'its flesh is very palatable'; that 'in Italy it is much esteemed'; and that 'in parts of Great Britain it is also eaten, steaks from the neighborhood of the tail being preferred.'

"According to analyses made for the Bureau of Fisheries by the Bureau of Chemistry, based on samples of goosefish obtained in Boston, the nutritive value of the goosefish is high. The edible portions contain considerably more protein (flesh-building material) than the flounder, slightly more than a cod, a little less than the halibut, and considerably less than sirloin steak. In fat constituents, the fish is a very little below the average of cod and flounders and considerably inferior to the halibut. As obtainable in the markets, the goosefish is equal to beefsteak in protein, the most expensive of our food elements.

"The goosefish has an average length of three feet, but fish four feet or more in length are not uncommon. It is of rather ugly appearance, and this doubtless accounts for the lack of appreciation of its food-qualities. The body is very broad and depressed, the head is large, and the mouth is wide and of enormous capacity. The powerful jaws are provided with a double row of strong teeth.

"The fish are most voracious, eating almost every kind of animal of suitable size living in the sea. In addition to fish, it feeds regularly on worms, starfish, gastropod, and bivalve mollusks, squids, lobsters, crabs, and various water-fowl, including ducks and geese. Great variety of diet is accompanied by excessive greediness, so that a single meal may weigh half as much as the fish itself. This fish is, therefore, very destructive and its utilization would have a beneficial effect on the abundance of various fishes, crustaceans, etc., of economic importance.

"The enterprising housewife will naturally ask, 'How much will this fish cost me a pound?' and 'Where can I get it to try it out?'

"The answer is that since the goosefish has no market value at present, the fishermen do not trouble to bring it home, but throw it back into the sea, and that therefore it is not now on the market. The only way to get it on to the market is to ask for it and to keep asking your market-man for it until you get it. If an organized demand is made for it from some such organization as a Woman's Home Economics Club, so much the better. Many wholesale fish-dealers realize that both they and the housewives have a chance to profit by the introduction of the goosefish into American cuisine, and they are anxious to supply the demand as soon as it appears. Your retailer may never have heard of the goosefish. See that your demand gets over through him to wholesaler. Only by insistent, reiterated demand can a market be created, and this wholesome and delicious food be brought within the possibilities of the woman who is looking for good low-cost dishes for her family table."

The strike of the fishermen working on the independently-owned halibut schooners operating out of Seattle, Washington, was settled during the month of July. The strike was called on March 1st, when the Deep-Sea Fishermen's Union of the Pacific made a number of demands upon the owners of the independent halibut schooners, which demands the owners could not see their way clear to grant without going out of business. The strike continued for four and one-half months, and the differences have been amicably settled, the owners of the Fishermen's Union having entered into an agreement which settles all outstanding points of difference.

Fish Scarce in Germany

Huns Now Eating Whale Meat at 85 Cents Per Pound.

The Fishing News says editorially: Evidence from reliable sources which has come into our possession shows that the blockade is telling in Germany and that there is increasing stringency and privation in the matter of food. To say that Germany is starving would be an exaggeration, but there is no doubt that the people are suffering very considerable scarcity and that the prices of food have risen very high and particularly of meat and fat. Horse flesh, for instance, which before the war sold at 40 to 50 pfennigs per lb., and was a common article of food of the working classes, is now selling at 2.50 marks, and is practically unobtainable by the poor. Fish is becoming very scarce and expensive. On this point our informant has some interesting details. He quotes the "Hamburgische Correspondent" as say " a shortage of sea fish, both fresh and cured, on the German provision market, has recently become more and more noticeable, and the trifling amounts which are offered for sale fetch enormous prices." This is ascribed to British intrigues. It is explained, for instance, in this Hamburg paper that last year Germany was able to purchase the Norwegian catch, but this year England has intimidated the Norwegian fishermen by refusing to supply them with coal and certain raw materials necessary for their business unless they give an undertaking that their fish will not reach German markets. Similarly England secured control of the output of the fish preserving works by refusing to supply them with tin. Formally England purchased the whole of this year‘s Norwegian catch and also the entire output of whale oil. These measures, of course, appear very wicked and very wrong in the eyes of the Germans, but they are quite legitimate and they are distinctly more humane than torpedoing harmless vessels and drowning innocent sailors and passengers. If we can buy up the food supplies of neutral countries and prevent food from reaching Germany, we are quite entitled to do o and right to do so.

The "Frankfurter Zeitung," of June 18, states that England is also preventing Norwegian mackerel from reaching Germany or even Denmark — another example, it adds, of the victimization of a neutral State by the starvation policy. In the same way the Germans, we suppose, will be greatly concerned about our seizure of Dutch fishing vessels; they will be very lachrymose over the wrong done to a neutral State because it is not allowed to send unlimited supplies of fish to Germany. This zeal of the Germans for the rights of small neutral States is very nice. There was no word of the rights of small neutral Belgium, but evidently now, when their stomachs are beginning to be affected, they are becoming very sensitive on the subject and are full of anxiety for neutrals. Lastly, our informant states that many shops in Germany are now offering whale flesh at 3.20m. a lb., as the newest thing in delicacies, but one paper describes it as tasting like a piece of water-proof boot well soaked in blubber, adding that foreigners may well think that Germans are starving when they hear of them paying such a price for revolting filth which would be dear at 50 pfennigs the lb. As was said at the outset, we must guard against exaggerating the scarcity in Germany. There is no likelihood of anything like a revolution taking place, for the nation is too well drilled for that, and as long as it believes that it is winning, it will stand a lot of privation and hunger. At the same time food riots are increasing in frequency and severity, and a significant thing is that soldiers are now taking part in these disturbances. There is every reason, therefore, to believe that the blockade is exerting a pressure upon Germany and we must keep on the screw in every way we can.

On this account the Government will be supported in the step which it has taken in detaining a number of Dutch fishing vesesls and bringing to an issue the whole question of the supply of fish by the Dutch to Germany. It is a strong step to interfere with the Dutch fishing industry and to say that they must cease sending supplies to Germany, which, even in peace time, is their usual market. The conditions, however, are altogether exceptional and the Dutch themselves recognize that this country has a case and that we can hardly be expected to sit quietly by and see tons and tons of food go into Germany for the benefit, as the "Nieuwe Amsterdammer" puts it, of "the extirpators of Belgium and the instigators of the war." The matter is really settling down to one of compensation. Our Government has offered to guarantee the Dutch owners their ordinary profits, if they will lay up their vessels; the Dutch demand that the compensation be fixed not upon ordinary profits or prices but upon present prices, which are, of course, far higher, and that the compensation extend to everyone concerned in any way in the trade. A compromise between these two positions should surely be possible, and the last intimation made by our Foreign Office was satisfactory as indicating that a settlement of the point is in prospect. It will cost us money — a great deal of money — but if we can prevent the Dutch fish from reaching Germany, it is worth the money. Every barrel of fish prevented from reaching the enemy is like a shell fired into his trenches. They are both ways of weakening him and bringing about his ultimate defeat.

The companies engaged in fishing for halibut on the Pacific Coast have this year experienced great difficulty in getting a sufficient number of fishermen for their vessels. The effect of the war has been to take a large number of men away from the Fishing Vessels into other trades, and in addition to this, quite a number of fishermen have enlisted for service in Europe. The men remaining in the business have claimed right along that on account of the scarcity of halibut and the consequent small catches of fish, they have not been making enough money. As a result of this, The Canadian Fishing Company, Limited, decided on the 10th of August to grant voluntarily to the fishermen an increase of twenty per cent, to take effect immediately, and the announcement was immediately made to the men. The increased pay immediately attracted a number of men, and the Canadian Fishing Company was able to get enough men to man their boats.

NEWFOUNDLAND NEWS

(From Our Own Correspondent.)

The general fishery outlook is gloomy in the extreme. From present data we are going to have one of the shortest fisheries (cod) in many years. From all points of the Island come the chilling report: "Fish scarce." For more than a fortnight no fish has been taken to the northward; and the "Prospero" (coastal mail boat) brings the report that the fishery to the northward is the worst in many years. Traps have been taken up and fishermen are now dependent on hook-and-line and bultows; but on certain sections of the coast the hook-andliners object to the use of the bultow, as they term it, "a fish destroying game." Presumably, the objectors are motived by jealousy rather than a desire to preserve the fishing industry. Some of our fishermen have very singular notions regarding both the industry and the use of modern appliances. In nearly every bay you find a certain number of the "sea-lawyer" fraternity who sway the crowd along their own line of vision. These, as a rule, have the most unbridled contempt for "the new fangled" regulations which are now being issued; and, as a rule, they always are on the short end of the voyage.

Shore Fishery.

The shore fishery is considerably short of last year. Along the North East Coast (from Cape John to Quirpon) it is reported the worst for years. From Cape John to Twillingate, there is a great shortage. Fogo has fared very badly; and in Bonavista Bay, less than half a normal catch is reported. Trinity Bay had fairly good fishing for a few weeks; but no fish has been caught recently. Conception Bay (from Bay de Verde to Harbor Main) has done fairly well. There has been poor fishing from Cape St. Francis to Cape Race; but westward towards Cape Pine, fishermen have recently secured good hauls. Placentia Bay is fully forty per cent. short of last year. The same applies to Fortune Bay. Some days ago good fishing was reported at St. Lawrence (Burin District). Fishermen who had traps in the water during the past week have sustained severe losses; we have had a north east gale (which is only now August 10th) subsiding for several days. We have not any detailed report of the losses; but judging from the number of ads' appearing in the daily papers regarding lost traps and moorings, the loss has been considerable.

During the season we have had a very large addition to the motor craft fleet; and we feel that within two or three years the days of the "sweeps" and large trap crews will have passed into oblivion. Motor engine agents whom we have met report very good sales; and they are hoping for a good sheaf of orders in the latter part of the year. Still, there are many independent fishermen who have not yet tried the "modern" way of fishing. Possibly many of these will invest. It seems to us that fishermen make very serious mistakes with regard to purchasing engines. You find in some small sections on the Coast, about a dozen different styles and make—every one of them, of course, being (according to the agent's dictum) "the very best made." Were the fishermen wise, they would invest in the same class of engine in the smaller sections—engines of which duplicate parts are kept in stock here. This would preclude the possibility of having a boat out of commission for weeks, pending the arrival of the broken parts from Canada or the United States. There would be also an additional advantage in that engine troubles would be more readily remedied. The catch, as reported by the Board of Trade to July 22nd, is according to districts as follows:

Districts.	Quintals.
Ferryland	15,130
Placentia and St. Mary's	22,395
Burin	85,555
Fortune Bay	36,590
Burgeo and Lapoile	32,945
St. George's	7,130
St. Barbe	19,245
Twillingate	2,320
Fogo	3,570
Bonavista	19,150
Trinity	24,190
Bay de Verde (estimated)	17,000
Carbonear	1,246
Harbor Grace	2,590
Port de Grave	2,500
Harbor Main	790

This table will seem almost unintelligible to the average reader; but when it is stated that, included in the Burin, Fortune Bay and Burgeo figures are the catches made by bankers since the beginning of February.

The Straits catch is included largely in the Trinity showing; and where small catches are set down, most of the fishermen go to Labrador.

The Straits Fishery is not an average one, being estimated at 11,000 quintals; and from recent reports by the "Ethie" (mail boat), the fishery is practically over.

The Straits fishermen make serious complaints against some of our Banking skippers who over-ran their ground near Greenly Island. The fishermen even state that their gear was cut adrift by the dory crews of the bankers. This will likely be investigated. This is the first time we have ever heard complaints of this nature; and we hope, for reputation of the men of the big fleet, that the matter has been exaggerated.

Northern fishermen, from Bonavista Bay and Trinity Bay, have fared pretty well in the Straits, and have arrived with fares varying from 200 to 350 quintals. They have landed their catch are now away to northern Labrador. The fish landed will be "shore cured" and will, from present indications, fetch a good price. There will certainly be a good demand for well-cured fish, as there is little of it in sight.

Bank Fishery.

The Bank fishery which opened so auspiciously has had quite a set back recently; and small fares have been the rule since the caplin baiting. Practically all our fleet are now fishing on the Labrador Coast; and we understand from recent arrivals from the coast that some of the fleet were fishing off the Turnavicks (below Cape Ailik) and that they had been fairly successful. No detailed reports have been received. The vessels will likely return this week for a squid baiting.

Squid is reported plentiful at certain points in Conception Bay, especially at Carbonear. The first comers will have no difficulty in securing large baitings and doubtless at reasonable prices. Some Nova Scotian (Lunenburg) vessels are reported at Cape Broyle, but few of them have large fares. The "Natoma" has arrived at St. Jacques from the Grand Band and hails for 600 quintals. The "Marjorie Inkpen" was in port recently for supplies, and she has sailed again for the Grand Bank. She hailed for 450 quintals.

Unless our vessels secure large trips on their squid baitings, we shall have a very small banking voyage. A large quantity of the fish brought in by the Banking fleet has been sold green to Gloucester firms; and several cargoes have recently been shipped from Belleoram, St. Jacques and St. Lawrence. The winter trips are now almost cleared out; and shipments to Oporto, and Spanish ports are going out every week from Grand Bank.

The Oporto market is good; but there is a great danger that it will become congested owing to so many arrivals at the same time. The schooners, "Albert Moulton", Lady St. John", and "Russel H. Kent" arrived at Oporto during the past week, and several other cargoes are in transit.

Exports for July.

From outports:

	Quintals dried codfish.
To Europe	41,044
To Canada	541
To United States	285
Total	41,870

	Quintals pickled fish.
To Ireland	4,203
To United States	9,264
Total	13,467

Also, 9,156 barrels herring.

From St. John's:

	Quintals dried codfish.
To Brazil	23,913
To West Indies	13,788½
To Europe	9,923
To United Kingdom	545
To United States	552
Total	47,621½

Also, 637¼ tuns seal oil; 26⅞ tuns cod oil; 11,864 gallons cod liver oil; 30 tierces herring; 30 tierces salmon; 5,075 barrels herring; 35 barrels salmon; 6 barrels trout; 20 barrels turbot; 201 cases lobsters, and 76,439 seal skins.

Comparative Statement of Fish Products.

Dry Fish:	Quintals.
1916	89,491½
1915	71,912
Increase	7,579½

Pickled Fish:	Quintals.
1916	13,467
1915	12,827
Increase	649

We are making shipment to Ireland again this season; and the firm of Buckworth & Company, of Cork are operating on the South coast. This is a revival of a trade which in former times was a regular feature; and in the 50's, of last century we had quite a respectable trade with Ireland, chiefly with Cork and Waterford.

Our shipments to Great Britain will, it is feared, be limited this season owing to the fact that Great Britain has purchased nearly the whole of the Norwegian output. This was done presumably to prevent Germany from obtaining a much-needed supply of fish; but it is bound to react badly on our trade. It is feared by our exporters that a good deal of this fish will find its way into the Mediterranean and South American markets.

An agitation is being made to represent this fact to the Imperial authorities; and it is believed in commercial circles here that if the matter were submitted to the Home Government that our markets would not be menaced by the dumping of large quantities of fish into what we regard as our legitimate markets. The Trade Review commenting on this serious menace to our trade says very wisely: "Our Board of Trade should act at once and find out what effect this artificial cornering of the market is going to have on Newfoundland. They may wake up when it is too late to do anything, when fish has slumped down to half value, our old markets taken from us, and prospects dead."

The fact is that our Board of Trade does not seem to be alive to the seriousness of the issues involved. There is a feeling abroad that it is not sufficiently representative of the business interests of the country, and that its personnel is too insular in its activities.

It was hoped when the Board of Trade was organized that it would be helpful in developing the fishing industry along more modern lines, and that it would be instrumental in securing new markets for our fish products. It seems to have done nothing beyond the issuing of "Reports" and posting market quotations which have little interest beyond the commercial centre at St. John's. We are still going along in the same old rut; and we have allowed competitors to invade promising markets without a murmur. We are still shipping immense bulk cargoes to the Mediterranean—cargoes which must have a depressing tendency upon the market. We have, of course, made a departure in the shipment of four and two-quintal packages (we have had drum shipments for years); but we have been content to rest there. It was hoped that we should get a footing in the Argentine Republic where there is a good demand for fish; but we never get by Brazil. We have heard it stated by an Argentinian that a quantity of our choicest codfish finds its way to the Argentine where it is sold as a Spanish product. We mentioned this to a large fish exporter some time ago, and made a suggestion as to how this market might be made available. But the advice fell on deaf ears. He "doubted if there would be any money in it." He was unwilling to try the experiment.

Until we get out of the old furrow ploughed many generations ago by our forbears, we shall be dependent upon the markets which they used to supply. We seem to forget that this is a progressive age; and that what served the purpose of our grandfathers should not be good enough for us in these strenuous times.

The greatest enemies to the big fishermen's organization—the Fishermen's Protective Union—are certain members of the St. John's Board of Trade. They have made every effort to thwart its development; and they do not seem to realize that it has come to stay, and that it will ultimately be the ruling power in the Island. In fact it is so already; and the President of the Union yields more influence than a dozen such organizations as the Board of Trade.

What your President Mr. Byrne says in your last issue regarding the CANADIAN FISHERIES ASSOCIATION may be written of the F. P. U.: "Since its organization it has accomplished much for the benefit of the Fishing industry as a national asset by improving the conditions under which it is carried on. It is essentially an Association with a mission and (its) objects as set forth in the Constitution is to improve methods of production, to assist in opening up foreign markets for (our) fish and to prevent the enaction of unfair or unwise legislation which may unjustly affect those engaged in the fishery."

The F. P. U. is somewhat broader in its scope than the C. F. A. which is effecting so much for your fishing interests. Its membership is in the neighborhood of 23,000. It has its own co-operative stores—some 35 in number; and it offers the best possible field for investment by the toilers of the sea.

If the members of the Board of Trade could be made to see that the interests of the Colony were best conserved, they would just climb off their pedestal and thus promote the common weal.

Labrador Fishery.

The news from Labrador is discouraging in the extreme. On what is known as "Up-the-Shore"—a stretch of territory (extending from Battle Harbor to Maccovick)—where the "stationers" are located, the catch is the smallest reported in many years. Few traps report for more than two hundred quintals, whilst some have not secured twenty. This spells blue ruin for many suppliers who have outfitted crews for the season. The general report is that the fishermen arrived too late on the coast owing to having been hampered by ice on the way down. Some vessels were more than two weeks late; and it seems that the fish had "struck off" ere they had reached their destination. Fish and caplin were in much earlier than usual; it was an open spring, and there was very little ice on the coast in May and June. Some sections report large quantities of fish in the deep water outside the regular fishing areas; and those who have used trawls have secured fairly good catches. There is still time to get a "saving" voyage for the small crews on hook-and-line; but the problem will be the securing of bait. No herring are reported so far. The great bulk of the stationers are from Conception Bay ports; so they will be the chief suffers.

Some of the "floaters" that were fishing in the Straits, as far east as Chateau, have returned with good fares; and they are now down beyond Cape Mugford. The big fleet have all gone to the far north, and some of them will likely be heard from within the next week or so when the "Sagona" returns. Otherwise we shall not get a report till they get in touch with the Marconi station at Maccovick. There is a good deal of anxiety about the fleet. Most of them fared badly last season; and a second bad year will be disastrous. The failure will fall most heavily on the masters, as a large percentage of them own their schooners; others are simply outfitted by supplying merchants. The greater part of the floaters, catch is brought to the home port; at least this has been the custom in former years. Only a small percentage cured their fish on the coast. What will happen this year is conjectural, as we learn that a quantity will be sold as "salt bulk." The "News" recently said that "several American vessels are now on their way to Labrador for cargoes." If this be so, there will be a very small quantity of fish available for the St. John's market this autumn.

The Labrador fishery is certainly declining; and the writer remembers when there were 200 vessels prosecuting it from ports in Conception Bay. Some thirty years ago there were some 1,400 vessels engaged in this fishery; but **tempora mutantur!** The following is the "official" report of vessels engaged this season; but, with all due respect to the compilers of our statistics (which, they say, "cannot lie") we doubt if the actual number of either vessels or crews is given. But we must suppose that it is fairly correct:

Port.	No. of Vessels.	Tons.	Crew.
Harbor Main	5	230	86
Conception Harbor	4	210	197
Brigus	34	1,611	995
Bay Roberts	21	1,016	513
Spaniards Bay	8	550	378
Harbor Grace	22	1,217	707
Western Bay	6	296	163
Trinity	85	3,184	805
Catalina	14	509	122
King's Cove	25	791	201
Greenspond	101	3,520	785
Herring Neck	30	1,262	229
Twillingate	101	3,593	679
Moreton's Harbor	23	624	140
Little Bay Islands	45	1,329	297
Bonne Bay	7	180	46
Channel	14	145	45
Totals	545	20,567	6,388

This table will seem a puzzle to any who examine it carefully. It will be noticed that at the head of the list the "crews" seem abnormally large for the number of vessels. The explanation of this is that Conception Bay schooners, in addition to the regular fishing crews, bring to the coast a number of small "planters" and their outfits—known locally as "freighters." These constitute the stationers mentioned above and locate in harbors "up the shore" where they have "rooms." These pay the schooner owner for their transportation; and the mode of payment is 20 cents per quintal for all fish caught by them. Should the stationers fare successfully, the schooner owner gets a good freight but should they fare badly, he gets very slim returns.

Further it may be said that this "statistical table" (so called) takes no account of the hundreds of stationers who take passage by the steamers of the Reid-Newfoundland Company which ply weekly between home ports and the coast. These get a special rate from the R. N. F. Co., and it actually figures out less than the very uncomfortable "freighting" on schooners. This seems to be a singular term to use in connection with humans; but it has gone into local use as an established. Formerly conditions on the schooners were simply disgraceful; but they have improved within recent years.

The Labrador fishery is a very precarious venture; and whilst some planters reap fairly good harvests there are many who can barely "make the two ends meet," if they do that even.

This industry needs to be made a subject of investigation by the Newfoundland Government; but nothing is being done to develop or foster our greatest industry.

Last year the Government appointed a Commission to "investigate" the whole subject of the fishery. The Commission made its report in due course and amongst other "recommendations" we find:

"This Commission desires to record its view that some attempt should long ago have beeen made to investigate in an intelligent, comprehensive and scientific way, the waters and fishing grounds contiguous to the shores of the Colony and Labrador. That the service of a thoroughly competent man, combining scientific training and practical knowledge of the fishing industry should be engaged, and that he should be given the widest possible discretion in the pursuance of his work. We have practically no detailed knowledge of the ocean bottoms around our coast (or on Labrador) nor has there ever been any intelligent attempt to locate new fishing areas which unquestionably exist."

We have heard nothing further of the report; nor has anything been done to carry out the "views" of the Commissioners. Nor will anything be done in this country until we dissociate the Fisheries Department from the domain of parish politics.

The fact is that we are not advancing in the Fishing industry; but we are retrograding at an alarming pace.

To illustrate this we will show that more than a century ago we were doing a much large fish trade than we are to day. In 1813, when the population of Newfoundland was just one-eight of what it is to-day, we exported 912,183 quintals of codfish; 3,761 tierces of salmon; 4,054 tuns cod oil; and 1,583 tuns of seal oil. We also got better prices, as then the purchasing power of a dollar was fully fifty per cent. greater than it is today. The quotations were:

Fish, per quintal, 32s.; Salmon, per tierce, 95s.; Cod oil, tun, 30 pounds; Seal oil, tun, 32 pounds.

So, instead of making progress, we are going the other way. This is truly a lamentable condition of affairs. We cannot even keep the pace set for us more than a hundred years ago!

Oils.

A great deal of our seal oil has been marketed; but the price received is known only to the exporters. We shipped some 637¼ tuns during the month of July.

Common cod oil is now selling at $140 per tun; and it is expected that it will again reach the figure paid some three motnhs ago. There is not a larger quantity in sight at present writing; but from an exporter we learn that he believes that much of the refined oil will be sold as common cod oil owing to the fact that some refiners have not taken the necessary precaution to turn out a first class article.

Refined oil (medicinal) has taken quite a slump in the local market. During the month of July it dropped to 90 cents per gallon; but it seems to have recovered within the last fortnight. It is understood that a regular price in the market today ranges from $1.25 to $1.50. There is little demand, however, and only small quantities are coming in. Those who can afford to hold it are doing so awaiting better markets.

Some 350 licenses were issued by the Fisheries Department to oil refiners, but we do not know that all of them have been utilized. The oil business (medicinal) seems to have been overdone; and many of the refiners will come out at the wrong end of the horn. Some of them from 35 to 40 cents per gallon for liver; and much of the product will be unsaleable as medicinal oil. Under the Regulations of the "Act Respecting the Refining of Cod Oils" no refined oil shall be exported unless it has been inspected by the Government Inspector; and each refiner must get a certificate to that effect. Formerly there were no restrictions on refiners; and we sent out stuff that was found to be of very inferior quality. Many of the refiners are chafing under these restrictions; but something had to be done to conserve our reputation. Many of the refiners visioned a bonanza in this special product; but they were warned at the beginning of the fishing season through the medium of Mr. Coaker' srogan (the most widely circulated newspaper in fishing centres) that they should be careful about the manufacture of the product, and that the refining business was likely to be overdone. Mr. Coaker has recently returned from a trip to the northward where he inspected the several branches of the Trading Company's stores; and in the columns of the "Mail and Advocate" he has stated that the quantity of No. 1 Medicinal Oil would be small. He has also stated that much of the product has become rancid and discolored so that it would necessarily be sold as common cod oil.

Various theores are afloat as to the cause of the slump in refined oil. People generally believe that it is due to the action of the British Government in purchasing the oil output of Norway. Some of this oil, so states the "Trade Review" was sold to England at $7.00 per gallon. This oil is already arriving in England, but dealers refuse to buy it at such a price. The United States drug trade is also "playing possum" as it is believed that the price will come down. "This, says the 'Trade Review' is what is holding up all offers and enquiries for cod liver oil. The "Review" believes that refined oil must advance later on, and it says "If Germany wanted this oil for use because war was on, it is reasonable to assume that Great Britain will want it also. If the Germans want it to make munitions, glycerine, etc., Britain can use it for the same purpose."

Canada seems to offer better inducements than elsewhere at the present time, as recent quotations are: Newfoundland cod oil (common) 72 to 73 cents; No. 2 whale oil, 75 cents; steam refined seal oil, 75 to 77 cents; straw, 75 cents; cod liver oil (Newfoundland) $3.25; Norwegian (frozen process) $4 to $4.15; Gaspe (common oil) 60 to 65 cents.

Herring.

There is nothing doing in Scotch pack; but good split herring are worth from $3.80 to $4.50. Several small shipments have been made to Nova Scotian ports from the West Coast and from Notre Dame Bay. The "Heckman" arrived in port to-day with a cargo to the F. P. U. from Exploits. The herring market, however, is dull. We understand that some 16,000 barrels are still held in cold storage in New York.

Lobsters.

The lobster fishery is now over and the entire pack is estimated at 10,000 cases. The fishery on the west and south coasts was better than last season, but little was done to the northward. There are very few shipments coming in, though yesterday we noticed the arrival by rail of a fair sized shipment from Bonne

Bay (transhipped at Bay of Islands). Holders of lobsters do not seem anxious to sell, hoping that the price will advance in consequence of the lifting of the embargo on consignments to Havre. The price offered to-day is from $15 to $15.50 according to quality.

Salmon.

There is little doing in salmon at present. The largest part of the catch has been tinned, of which the local market will take a considerable quantity. Some 70 packages (barrels and tierces) went out during the month.

Shipping.

The transportation problem is being rapidly solved. Some 25 vessels (chiefly for the trans-Atlantic trade) have been purchased within the year. The latest additions to the fleet are the "W. K. Pritchard", the "Artizan" the "John Llwellyn," and the "Czarina." The last mentioned was formerly the property of Lord Brassey, and was purchased by Bishop & Co. She is fitted with an auxiliary engine; but this is now being removed. She is being put in condition for the foreign fish-carrying trade and is a splendid addition to the fleet.

Several large vessels are under construction—one at Grand Bank of 200 tons for Harris; one at Placentia (220) tons for G. C. Fearn; one at Monroe, Trinity Bay, of 200 tons for Bishop & Company, Harvey & Company have under construction in Nova Scotia a vessel of 240 tons for their Belleoram Trade. So we are advancing along the lines of improvement in this direction. Local builders are getting busy, and work has already begun on the Shipbuilding Plant at Catalina by the organization of which Mr. Coaker is the head. This will form one of the several features of the big project which he has outlined for what is to become the "Northern Capital."

We have had an unusual number of wrecks within the past month. The "Athos" (Nor.) went ashore near St. Shotts some two weeks ago. She was timber-laden from Bathurst, N. B., bound to St. Nazaire, France, and struck during a dense fog. After refloating she reached Trepassey where a diver succeeded in effecting repairs which enabled her to cripple into St. John's. Her cargo has been discharged and she went into Drydock. She was very badly damaged.

The "Matatua' 'with general cargo from Montreal to Liverpool went ashore in the same vicinity a day or two later. She is still hard and fast on the rocks; but hopes are entertained of refloating her. Several Canadian tugs are standing by her, and the cargo has been nearly all saved. Should she be refloated, it is likely she will come on here for repairs.

A week ago the "Sam Blandford" (formerly the "Newfoundland") was lost on the "Keys" west of Cape St. Mary's. She was returning to St. John's from New York, laden with anthracite coal, and during a dense fog hit one of the ledges. She backed off after a while, and was headed for the nearest land; but notwihstanding heroic efforts to keep her free, the engine-room was flooded; and the crew abandoned her. She sank shortly afterwards. The Captain and crew after twelve hours battling with the elements succeeded in reaching the Cape Shore. The loss to Job, Brothers, owners of the steamer, will be heavy, as she had been practically rebuilt in New York.

Some wrecks of schooners have been reported recently, but, as far as we learn no lives were lost, except in what is reported as the "St. Jacques tragedy", which occurred near Belleoram some time ago. The yacht "Caribou" was upset in a gale and the owner, Mr. Ryan and Mr. Clinton, Collector of Customs at St. Jacques were drowned. Mr. Burke who went to the rescue in company with Dr. Fitzgerald and two others in the power yacht "Albatross" was also drowned. The Albatross was cut down by the steamer "Hump" which was also going to the rescue. The accident has cast a gloom over the little settlement of St. Jacques.

Industrial.

The Plan of the Newfoundland-American Packing Company at Bay Bulls is fast getting into shape, and already the Company are preparing for work. The prospects for this year, however, are not particularly encouraging as far as codfish program is concerned. But the other phases of the business will likely get a good a start. This organization is financed by American capitalists of New York and Boston. It will afford employment to fully a hundred people.

The biggest enterprise ever projected in the Colony has been launched by the President of the Fishermen's Protective Union—Mr. Coaker at Catalina—some fifty miles north of St. John's. Mr. Coaker is President of several subsidiaries to the F. P. U., viz.—the Union Trading Company (capital $250,000); the Union Export Company (capital $500,000) and the Union Publishing Company which publishes the Mail and Advocate (daily) and the Fishermen's Advocate (weekly) which have the largest circulation of any papers in the Colony. He is also President of the Union Electric Power Company and the Union Shipbuilding company both of which enjoy extensive franchises from the Newfoundland Legislature.

Work has already begun at Catalina by the Construction Company, and a breastwork constructed along the waterfront of the Union property (some eighty acres in extent). Along this breastwork is being constructed a salt store with a capacity of 8,000 tons of salt. South of this store is being erected a large three-story building 125 x 100 feet, of which the lowest flat will be in the provision department; the second will be the fish store and fish—drying section—the top flat will be the boneless fish factory, while the roof which connects with a flat hill in the rear will have a large area which will be used for fish drying.

Electric Elevators will be installed for handling fish (the power being supplied by the Union's own plant which will also light the town).

A large pier will be constructed on which will be located sheds for the housing of salt bulk fish to be used in the manufacture of boneless and shredded products.

Nearby will be the Export Departmental store 60 x 100 feet, containing five distinct departments. Adjoining it will be a Bakery which will provide biscuit used by our fishermen; it will also cater to the trade in other lines.

The marine features of the enterprise will be a large railway dry dock (capable of taking up the largest sailing ships in the trade) and an extensive Shipbuilding Plant in connection with which will be a Saw Mill and Factory where the timbers, plank, and other essentials of the industry will be prepared.

The Export Company will handle all sorts of fish products, codfish, herring, salmon, lobsters, turbot, plaice, caplin, fish oils common and medicinal. There will be an absolute elimination of waste. A Fertilizer installation will take care of the offal; while from the fish skins and heads, commercial glues will be manufactured. This is the largest and most comprehensive fishery project ever launched in this country; and we doubt that any such an assemblage of utilities exists in any other British Colony.

If energy, industry, grit and ability are a guarantee of success, the Catalina project must succeed. Mr. Coaker is a graduate of the University of Hard Work; and the manifold positions he now occupies is the best proof of his industry and energy. He began his career as a fish handler on the city wharves when he was but eleven years old; and he has ever since been identified with the cause of the toiler. The development of the enterprise launched at Catalina will be watched with great interest.

The Markets.

Very little new fish is coming in, except from nearby outports. The weather up to last week was favorable for fish making; but output dealers are are not sending much fish city wards. In fact there is not a very large quantity to come in. American buyers are gathering up large quantities of salt bulk along the South coast; and in Conception Bay. Placentia Bay, Bonavista Bay, and along the western shore, shipments are being made direct to market. The fish coming in is mostly small, but it well cured. The best price offered, as far as we can learn is $6.50.

The Oporto market is attractive with prices ranging from 40s. to 42s.; but it is feared that there will be a congestion shortly and a slump owing to so many arrivals. We learn that some late shipments have been ordered to Spanish ports. Receipts at Oporto for the week ended August 5th amounted to 16,860 quintals; the consumption was 4,935 quintals. Porto Rico quotes: "Stocks of codfish are very small and prospective receipts from New York are also small. Prices hold firm and prospects are encouraging. Large codfish, exwharf, $39 to $40 per cask (of four quintals, 4,481 pounds); Small and medium, $37 to $38."

The Mail and Advocate says today: "It now appears certain that the catch of 1916 will be far below that of last year; consequently the price of fish must advance. Labrador off the shore is worth $5 per quintal, if good. The F. P. U. is sending men to Labrador to purchase at $5 per quintal. Fish is very scarce and bait even scarcer. Shore fish must advance, local and foreign."

Market Report (August 5th.)

Merchantable, quintal	$5.50 to $6.50
Madeira, quintal	$5.50 to $6.00
Labrador	none
West Indian, quintal	$3.00 to $3.50
Haddock, quintal	$3.50
Herring, per barrel, Scotch	$8.00
Herring, per barrel, Split	$3,00 to $4.00
Salmon, No. 1, tierce	$16.00
Salmon, small	$12.00
Lobsters, pound tins	$15.00
Cod oil, tun	$140.00
Cod liver oil	$125.00

Notes.

Fishermen are going to face high prices in the provision line this fall. Flour advanced $1 per barrel in the local market recently. Molasses is higher than it has been for years, the wholesale price is now 53 cents; it is believed that it will go higher. Sugar is now quoted at $9.60 per sack of 100 pounds.

The Whaler Cacholot, operating at Hawkes Harbor, Labrador, hails for 35 fish, including two sperms. Whales are reported plentiful; but foggy weather has rendered cruising impossible for several days.

The total number of French bankers, of all descriptions, operating during the present season, does not exceed 100, as against 200 last year, and 516 in 1914. The steam trawlers which were fishing last season with headquarters at St. Pierre have been taken over by the Government for naval work; and the larger sailing vessel of the fleet have been withdrawn for service in the mercantile marine. This means quite a shortage of fish for France; but England will likely supply the deficit from its Norwegian purchases.

Very large quantities of "salt bulk" are going to the United States market from the South coast. Recently the Linda Pardy, with 283,600 pounds and the J. J. Flaherty with 532,000 pounds were cleared from St. Jacques for the Gorton Pew Company, of Gloucester, Mass.

The dogfish pest is hampering fishing operations in Placentia Bay. Fishermen say that dogfish were never so numerous before; that it is impossible to keep bait on their trawls. Were it not for the voracity of the dogfish, good voyages would likely be secured. Last season the fishermen were similarly hampered after they had taken up their traps.

The following bankers arrived at Harbor Breton on August 11th: Stella, 450 quintals; Ornate, 700 quintals; Eva Blanche, 650 quintals; Matamora, 750; Louisa M. Stanley, 750; and Utoma, 350.

Captain Walter Kennedy of the banker Alice arrived in recently and reports that during the last month fish has been very scarce on the Grand Bank, and only a few vessels succeeded in getting fares. He reports the total catch of the fleet was far short of last year, and prospects are none too encouraging.

The Lunenburg schooner Marion Mosher arrived from the Banks recently and brings a similar report to that given by Captain Kennedy. She also reports very stormy weather.

The report of the Sagona from Labrador (just received by Marconi) shows no improvement in the fishery. Nothing has been heard from the big fleet of floaters to the northward; and they will not be heard from for fully ten days. There is a good deal of anxiety regarding their luck. If they fail to strike the fish, the Labrador fishery will be disastrous.

Halibut shipments from Prince Rupert and Vancouver have been hampered considerably for the past two months by a lack of refrigerator cars. The shortage of halibut has been serious in itself, but there have been many occasions during the Summer when fish have arrived, but shipment to Eastern points has been impossible on account of the great lack of refrigerator cars. The transportation companies explain the shortage of equipment by stating that all their cars are being used for the transportation of munitions of war.

NOTES ON THE PACIFIC

HALIBUT ARRIVALS AT PACIFIC COAST PORTS, JULY 1 TO JULY 31, INCLUSIVE.

At Prince Rupert, B.C.

July 2.—Schrs. Ranier, U.S., 6,000 lbs.; J. P. Todd, U.S., 20,000; Elizabeth, U.S., 5,000; Rose Spit, 16,000; Iskum, 12,000; T. Peterson, 6,000.—Delivered to Atlin Fisheries, Limited. Bryan, U.S., 12,000; Niagara, U.S., 16,000; Selma, U.S., 11,000.—Delivered to Pacific Fisheries Company.

July 4.—Schrs. L. & S., U.S., 8,000 lbs.; Corona, U.S., 20,000; Pharaon, 12,000.—Delivered to Pacific Fisheries Company. Jennie, U.S., 10,000; Vesta, U.S., 25,000; Alliance, 10,000.—Delivered to Atlin Fisheries, Limited. Lillian, U.S., 10,000; Jupiter, U.S., 14,000; Superior, U.S., 14,000; Dolphin, U.S., 10,00.—Delivered to National & Independent Fisheries Co.

July 5.—Schrs. Doreen, 11,000 lbs.; Merrymaid, 7,000.—Delivered to Atlin Fisheries, Limited.

July 6.—Schrs. Gilford, 10,000 lbs.; Mayflower, U.S., 8,000; Dixie, U.S., 6,000.—Delivered to Pacific Fisheries, Limited.

July 7.—Schrs. Elsie, U.S., 13,000 lbs.; Maud, 9,000.—Delivered to Atlin Fisheries, Limited. Nautilus, 7,000.—Delivered to National & Independent Fisheries Co.

July 8.—Schrs. Holdal, U.S., 11,000 lbs.; Petrel, U.S., 8,000.—Delivered to Atlin Fisheries, Limited. Spencer, U.S., 14,000; Agnes B., U.S., 7,000.—Delivered to Pacific Fisheries Company.

July 9.—Schrs. Viking, 8,000 lbs.; Tree, U.S., 10,000.—Delivered to National & Independent Fisheries Co. Seymour, U.S., 25,000.—Delivered to Pacific Fisheries Company. Atlantic, U.S., 25,000; Anna D., 4,000; Soya, 7,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd. M. T. 3, 10,000; Tuladi, 14,000. Delivered to Atlin Fisheries, Limited.

July 11.—Schrs. Magnolia, U.S., 15,000 lbs.; Director, U.S., 5,000; Liberty, U.S., 6,000. Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 12.—Schrs. Wireless, U.S., 15,000 lbs.; Ada N., U.S., 15,000; Andrew Kelly, 60,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 13.—Schrs. Dolphin, U.S., 12,000 lbs.; Elizabeth, U.S., 12,000; Hi Gill, U.S., 12,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 14.—Schrs. Margalice, 6,000 lbs.; Tide, 7,000; Selma, U.S., 7,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 15. — Schrs. Norona, U.S., 12,000 lbs.; Nellie, U.S., 12,000; Corona, U.S., 35,000.—Delivered to Atlin Fisheries, Limited. Zorra, 20,000; Soya, 7,000; Chief Skugaid, 30,000.—Delivered to The Canadian Fish & Cold Storage Co.

July 16.—Schrs. Corona, 30,000 lbs.; Alliance, 13,000; Rose Spit, 10,000; Stranger, U.S., 12,000; Venus, 8,000; Vasa, 12,000.—Delivered to Atlin Fisheries, Limited. Unity, 6,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 17.—Schrs. Karl, 8,000 lbs.—Delivered to Pacific Fisheries Company. North Pole, U.S., 9,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 18.—Schrs. Pharaon, 8,000 lbs.; Doreen, 8,000; Dixie, U.S., 6,000. — Delivered to Pacific Fisheries Company. Merrymaid, 6,000; Sea Gull, U.S., 16,000; Superior, U.S., 18,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd. Thelma, U.S., 27,000.—Delivered to Booth Fisheries Company.

July 19.—Schrs. Per Gynt, U.S., 14,000 lbs.—Delivered to Booth Fisher Company. Dip, U.S., 7,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 20.—Schrs. Chief Zibassa, 25,000 lbs.; Dolphin, U.S., 15,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd. Lillian S., U.S., 8,000.—Delivered to Booth Fisheries Company. Viking, 6,000.—Delivered to Atlin Fisheries, Limited.

July 21.—Schrs. Westfjord, U.S., 20,000 lbs.; Grier Starrett, 20,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 22.—Scrs. Petrel, U.S., 9,000 lbs.; Nautilus, 8,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd. Aurora, U.S., 6,000; Agnes B., U.S., 15,000.—Delivered to Atlin Fisheries, Limited.

July 23.—Schrs. Todd, U.S., 18,000 lbs.; Volunteer, U.S., 14,000; Director, U.S., 7,000; M. T. 3, 8,000; Murineag, 7,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd. Corona, U.S., 32,000; Jo Baker, 14,000.—Delivered to Booth Fisheries Company. Elizabeth, U.S., 11,000; Flamingo, U.S., 10,000.—Delivered to Pacific Fisheries Company; Holdal, U.S., 10,000; Tuladi, 17,000.—Delivered to Atlin Fisheries, Limited.

July 24.—Schrs. Kodiak, U.S., 30,00 lbs.; Gilford, 6,000; Jas. Carruthers, 60,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 25.—Schrs. Venus, U.S., 10,000 lbs.; Grayling, U.S., 10,000; Margalice, 8,000.—Delivered to Atlin Fisheries, Limited. Nellie, U.S., 14,000; Doreen, 17,000; Anna D., 6,000.—The Canadian Fish & Cold Storage Co., Ltd. Alliance, 18,000; Alameda, U.S., 11,000.—Delivered to Booth Fisheries Company.

July 26.—Schrs. Lincoln, U.S., 11,000 lbs.; Wilson, U.S., 22,000; Chief Skugaid, 35,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 27.—Schrs. Niagara, U.S., 15,000 lbs; Roald Amunsden, U.S., 15,000.—Delivered to Atlin Fisheries, Limited.

July 27.—Schrs. Venus, 32,000 lbs.; Merrymaid, 5,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 28.—Schrs. Daisy, 5,000 lbs.—Delivered to The Canadian Fish & Cold Storage Co., Ltd. Seymour, 30,000.—Delivered to Atlin Fisheries, Limited.

July 29.—Schrs. Exhibit, U.S., 10,000 lbs.; Magnolia, 18,000.—Delivered to National & Independent Fisheries Co. Vasa, 8,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd. Glacier, U.S., 14,000; Superior, U.S., 15,000.—Delivered to Booth Fisheries Company; Per Gynt, U.S., 6,000; Maud, 5,000; Tide, 10,000.—Delivered to Atlin Fisheries, Limited; Andrew Kelly, 80,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

July 30.—Schrs. Sitka, U.S., 25,000 lbs.; Mayflower, U.S., 6,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.; Stranger, U.S., 12,000.—Delivered to Booth Fisheries Company. Minnie V., 5,000; Zorra, 15,000.—Delivered to Atlin Fisheries, Limited. Thelma, U.S., 20,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

Note: All vessels not specified "US." are of Canadian Register.

At Vancouver, B.C.

July 1.—Stmr. Kingsway, 75,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 4.—Stmr. Flamingo, 10,000 lbs.; Nornen, 10,000.—Delivered to The Canadian Fishing Company, Limited.

July 5.—Stmr. Celestial Empire, 100,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 7.—Schr. Borealis, 40,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 8.—Schr. Pescawha, 80,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 10.—Schr. Emma H., 50,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 15.—Schr. Carlotta G. Cox, 65,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 17.—Schrs. Nornen, 12,000 lbs.—Delivered to The Canadian Fishing Company, Limited. Jessie, 12,000.—Delivered to Crown Fish Company.

July 20.—Stmr. Celestial Empire, 75,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 21.—Stmr. Flamingo, 90,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 22.—Schr. Emma H., 10,000 lbs.; Pescawha, 60,000.——Delivered to The Canadian Fishing Company, Limited.

July 24.—Stmr. New England, 110,000 lbs.—Delivered to New England Fish Company.

July 25.—Stmr. Kingsway, 60,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 26.—Schr. Borealis, 50,000 lbs.—Delivered to The Canadian Fishing Company, Limited.

July 31.—Schr. Nornen, 12,000 lzs.—Delivered to The Canadian Fishing Company, Limited.

At Steveston, B.C.

July 3.—Stmr. Roman, 115,000 lbs.—Delivered to Columbia Cold Storage Company.

July 8.—Schrs. Chief Zibassa, 55,000 lbs.; George E. Foster, 60,000.—Delivered to The Canadian Fish & Cold Storage Co., Ltd.

At Ketchikan, Alaska.

July 3.—Schrs. Knickerbocker, 60,000 lbs.; Manhattan, 80,000; Westfjord, 9,000; Per Gynt, 12,000; Elfin, 10,000; Helgeland, 70,000; Thelma, 16,000.—Delivered to New England Fish Company.

July 13.—Schr. Comet, 110,000 lbs.—Delivered to San Juan Fishing & Packing Co.

July 14.—Schr. Cora, 10,000 lbs.—Delivered to New England Fish Company.

July 18.—Schrs. Prospector, 90,000 lbs.; Manhattan, 75,000.—Delivered to New England Fish Company.

July 19.—Schr. Lincoln, 10,000 lbs.—Delivered to New England Fish Company.

July 21.—Schrs. Hazel, 10,000 lbs.; Lumen, 10,000; Elfin, 10,000.—Delivered to New England Fish Company.

July 24.—Schrs. Knickerbocker, 120,000 lbs.; C. E. Matland, 5,000.—Delivered to New England Fish Company.

July 25.—Schr. Northcape, 10,000 lbs.—Delivered to New England Fish Company.

July 26.—Schrs. Hi Gill, 5,000 lbs.; Rolph, 12,000.—Delivered to New England Fish Company.

PACIFIC NOTES.

The Dominion Government has decided to modify the terms of the embargo on shipments of crabs from British Columbia to United States points to the extent that they will permit crabs to be shipped to cross the line, provided they are disposed of to the retail trade only. For many years past there has been an embargo on the shipment of crabs from British Columbia to the United States, in order to prevent crab canneries from obtaining their supplies in British Columbia waters and shipping them South of the Line, it being believed that this would have the effect of depleting the crab fisheries. While this modification of the embargo will mean considerable increase in the export of crabs from British Columbia, it is expected that the people on the Canadian side will have to pay a much higher price for crabs because of the extra demand.

The Canadian Fishing Company, Limited, of Vancouver, B.C., is now busy rebuilding its Vancouver Plant. After the fire, which destroyed its premises on May 28th, it was doubtful for some time whether the Company would rebuild at Vancouver or remove to Prince Rupert. After consultation with a Committee of Directors, Mr. Hager announced that it was decided to rebuild the cold storage plant and wharf at Vancouver, as its Western headquarters. Plans were immediately drawn for the remodelling of the cold storage plant, and an extra storey was added. Another improvement was the installation of a second elevator. The cold storage building will be finished at the end of this month, and work has now been put in hand for the removal of the burned piling and the old wharf, preparatory to driving new piling and rebuilding the shed. The Company's new plant when completed, will contain every modern device for the speedy and convenient handling of fish.

Capt. A. Jacobsen, formerly of the "Chief Zibassa," of Prince Rupert, has transferred to the Schooner "Annie St. Leon."

PRINCE RUPERT NOTES.

Receipts in No. 2 (Prince Rupert District) for July.

Salmon 66,255 cwts valued at	$331,275
of this amount	
65,106 cwt. were canned	
2.599 cwt. used fresh	
5.978 cwt. Mild cured	
Cod, 613 cwt.	3,065
Halibut 24,972 cwt.	124,860
Shell Fish 20 cwt.	100

Total for July 91,840 cwt. valued at $459,300.00.

In month of June the receipts ex US. A. Fishing vessels were approximately,

Halibut 1,100,000 lbs. Salmon 37,000 lbs.

Returns are not yet available as to receipts ex-American bottoms for July, but the settlement of the strike in the South has released the fleet from inactivity and the receipts at Prince Rupert have considerably increased in consequence.

July has been an exceptionnally good month in the Hailbut industry. Fish have been plentiful and boats have made quick catches with prices ruling high.

The salmon canning industry is now in full swing for the 1916 season but the run is reported to be late, and there is anxiety as to a good pack owing to the lateness of the run this year. In proportion to the number of boats fishing, the Cassiar Cannery has been the most successful of the Bkeena and Naas Canneries.

Licenses issued to indepedent fishermen show a decrease this year over last 159 being issued this year as against 287 in 1915. This is caused chiefly by the fact of the war having taken a number of men away by enlistment. The general acute shortage of labour in all lines with its consequent better wages.

A splendid fisheries exhibit will be a feature of the Prince Rupert agricultural and Industrial Exhibition which will be held in September next. The following is a list of prizes offered:—

Best cannery exhibit of salmon. Gold medal and diploma.

Best exhibit of smoked fish. $5.00, $2.50.
Best exhibit of cured fish. $5.00, $2.50.
Best exhibit of shell fish. $5.00, $2.50.
Best exhibit of fertilizer. $5.00, $2.50.
Best exhibit of fish oils. $5.00, $2.50.
Best whaling exhibit. Gold medal.
Best fishery exhibit open to all fishing industries. Gold medal and diploma.

Net making. $5.00, $2.50.

Special prize for best quality of Canned Salmon on analysis containing the most nutriment, also best packed. Gold medal and diploma.

Fair dates are September 20th, 21st, 22nd next and entries close Sept. 10th 1916. Secretary's address is Box 394 Prince Rupert.

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Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, OCTOBER, 1916 No. 10

NATIONAL FISH DAY NUMBER - - OCTOBER 31st

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ONTARIO

Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted—October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

**The Minister
of Colonization, Mines and
Fisheries
Of the Province of Quebec**

DEPARTMENT OF THE NAVAL SERVICE

FISHERIES BRANCH

Lobster Fishery Fishing Seasons in Force on June 1st, 1916

Number of District	Limits	Fishing Season	Size
1	Charlotte County, N.B.	Nov. 15 to June 15	10½ inches
2	St. John County, N.B.	Nov. 15 to June 1st	9 inches
3	Albert County and Portion of Cumberland County, N.B., and King's and Annapolis Counties, N.S.	Jan. 15 to June 29	No Size Limit
4	Digby County	Jan. 6 to June 15	No Size Limit
5	Yarmouth, Shelbourne, Queen's, Lunenburg, and that portion of Halifax county west of a line running S.S.E. from St. George's Island, Halifax Harbour, and Coinciding with Fairway buoys	Dec. 15 to May 30	No Size Limit
6	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including Chedabucto and St. Peters Bays and the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite	April 1 to June 20	No Size Limit
7	Remaining portion of Cape Breton Island, including St. Paul's Island, not covered by District No. 6	April 15 to July 15	No Size Limit
8	The Magdalen Islands, including Bird Rocks and Bryon Island	May 1 to July 20	No Size Limit
9	Waters of Northumberland Strait, between a line on the N.W. drawn from Chockfish River, N.B., to West Point., P.E.I., and a line on the S.E. drawn from the west side of River Philip channel at the mouth of the river, Nova Scotia, to the eastern entrance to Victoria Harbour, Queens County, Prince Edward Island	May 25 to Aug. 10	No Size Limit
10	On and along the portion of the coast or the waters thereof, of the Provinces of Nova Scotia, New Brunswick and Prince Edward Island, westwardly and northwardly, from the Lighthouse in Antigonish County, opposite Flat Point in Inverness County, Nova Scotia, to the northern boundary New Brunswick, including the coasts and waters thereof of all the islands adjacent to these portions of the coasts of the said Provinces as well as the coast and waters thereof of the Counties of Quebec south of River St. Lawrence, except those specified in No. 8	April 26 to June 25	No Size Limit
11	North of the Gulf and River St. Lawrence including Anticosti Island	May 20 to July 31	No Size Limit

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of the Naval Service is required.

Cases of canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA AND NEWFOUNDLAND THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE - OF FISH PRODUCTS - -

F. WILLIAM WALLACE
EDITOR

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Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, OCTOBER, 1916 No. 10

October Fish Day Calendar

1916			OCT.			1916
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
1	2	3	4	5	$\boxed{6}$	7
8	9	10	11	12	$\boxed{13}$	14
15	16	17	18	19	$\boxed{20}$	21
22	23	24	25	26	$\boxed{27}$	28
29	30	$\boxed{31}$				

TUESDAY FISH DAY.

At an Executive Meeting of the Canadian Fisheries Association held in Montreal, on September 27th, plans for the promotion of a universal Tuesday fish day throughout Canada were definitely decided upon.

The inauguration of the scheme will take place on Tuesday, October 31st, and that day will be the forerunner of a permanent Tuesday fish day every week in the year. The Tuesday is not intended to displace Friday as a fish day, but is meant to supplement it. Hereafter, it will be recognized among the trade as a day when fresh stocks of fish will be on hand for their customers, and it is up to every fish dealer in Canada to educate the consumer to eat fish on Tuesday as well as Friday.

If all dealers will put their whole heart into the scheme and advertise the Tuesday fish day, it is safe to assume that the consumption of fish in Canada will be doubled within a year. Co-operation by all engaged in the fish trade is absolutely necesasry. The beneficial results to the Industry are certain.

The Canadian Fisheries Association through its members are using their powerful influence to make the idea a success. Every member of the Association will do his best to promote the idea in the centres in which they are located. The Association's Publicity Committee will distribute thousands of posters and folders to the trade all over the Dominion; the attention of the daily press will be called to the scheme; advertising and every means of publicity will be utilized.

Mr. J. A. Paulhus, Chairman of the Publicity Committee, will be in charge of the publicity work and he has planned a campaign which will keep the idea forever before the public. **The whole fish trade in Canada, whether members of the Association or not, are urgently requested to boost Tuesday as a permanent national fish day.** Success is certain. Go to it!

New Members, C. F. A.

The following new members were passed and accepted by the Executive of the Canadian Fisheries Association: William S. Arsenault, House Harbor, Magdalen Islands, Que.; Russell D. Hodge, Montreal, Que.; E. N. King, Rossport, Ont.; J. A. Thompson, Prince Rupert, B.C.; W. Cumming, Prince Rupert, B.C.; J. F.

Mathieson, Prince Rupert, B.C.; Clarence F. Morrissey, Tignish, P.E.I.; Arthur T. Tippett, Montreal; Frank Gustafson, Kenora, Ont.; J. S. Hawkins, Montreal.

More members are needed to make the Association's work better known. Every fisherman, fish company employee, and dealer should be in the Association to help along the good work of developing and promoting our fisheries.

WATCHING FISH TRANSPORTATION.

The Transportation Committee of the Canadian Fisheries' Association are doing commendable work in watching theinterests of the fish trade in transportation matters. At a meeting of the Committee on September 27th, it was brought to the attention of the members that the Dominion Express Company had raised their rates on lake fish from fish districts on lakes west of Westfort, Ont. The Association immediately took the matter up with the Board of Railway Commissioners and their decision on the question is looked for shortly.

The new fish carrying service recently inaugurated from Mulgrave, N.S., to Montreal over the Canadian Government Railways, in which a special express car fitted with an insulated chamber of 6,000 lbs. capacity is employed, is highly commended. The Transportation Committee is recommending to the Government and the Railroad Company that both ends of the car be equipped with an insulated chamber and that the capacity be thus increased to 12,000 lbs. It is also urged that the service be extended and that the special express cars leave Mulgrave three days per week, viz., Saturdays, Mondays and Tuesdays—an arrangement which will give ample facilities for those requiring fish shipped by express, not only to Montreal, but to take care of the business in points west of Montreal.

The Association's Transportation Committee is desirous of working harmoniously with the transportation companies and will aim to promote a better understanding of conditions between the two. The railroad men, in the past, have been inclined to neglect the requirements of the fish trade and seem to have cared little about the very great part they play in the development of the fishing industry. The Association hopes to remove a great deal of this misunderstanding, and in the effort to procure fair rates and increased facilities, to create a mutual spirit of good will to a common end between shippers and carriers.

PACIFIC FISHERIES DISPUTE.

The halibut fishery legislation promoted by Seattle fishing interests to combat the competition of Prince Rupert, and which was brought up in the United States Congress recently, has, fortunately for both countries, been suspended.

Canada, undoubtedly holds the cards in the fishery game, and we would be foolish if we did not play them. If the winning cards were in the hands of our brother across the line, it is a safe bet he wouldn't throw them down and allow us to take the pot. It would be a case of mistaken philanthrophy.

The fishery wealth of the Atlantic and the Pacific are alongside Canada's shores, but we are not reaping the benefit of their close proximity. It is the great Seattle fleets who are to be found fishing outside the three mile limit all the way up the B. C. coast to the Gulf of Alaska; it is the great fleets of Boston and Gloucester who are reaping the harvest of the banks off the Canadian and Newfoundland coasts. The plums are on the tree right at our own front doors, but the fellow down the street is plucking them.

"Live and let live!" is a commendable motto, and we do not want to act like a dog in the manger, but at the same time it is up to us to see that we get all that is coming to us and to make no such foolish play as bartering our birthright for a mess of pottage. If any discrimination is made against our fisheries by outsiders, let us use the retaliatory means at our disposal. To knuckle under to every squealer who howls because he's getting hurt would be utter foolishness on our part.

However, we do not advocate a policy of ruthlessness. A friendly exchange of views is by far the best and anything which will lead to an amicable settlement is to be commended. The Pacific halibut dispute should be viewed in the light of a rivalry between good friends, but Canada shouldn't allow her friendship to interfere with her good judgment.

SOME FISHING!

Mr. H. F. Robinson of Canso, N. S.—who we believe is a strictly truthful man — tells us the following strange story. It appears that while three Canso youngsters were over berry picking on an island in the harbor, recently, they noticed a large sword-fish stranded inshore. Getting in to their dory, they approached the big fish and found he had somehow driven his sword into the bank of the island's bold shore and could not extricate himself. The boys dropped a bowline over the fish's tail, and securing him, eventually, with some help, landed him on the dock in Canso. The fish weighed 420 pounds, and each of the boys drew a "high line" share of $9.21 cents.

FISH RESTAURANT AT EXHIBITION GREAT SUCCESS.

The fish restaurant run in connection with the Fisheries Exhibit at the Canadian National Exhibition, Toronto, recently, was a tremendous success.

Its patronage was measured only by its capacity, and day after day, it was necessary to close the doors for a time. During the term of the Exhibition—

two weeks—over 35,000 meals were served, as against 25,000 last year. The good advertising done by this method cannot be too highly commended.

The fish supplied was all first class quality and came from the Pacific, Atlantic and Great Lakes Fisheries. It was excellently cooked and well served.

The Fisheries Exhibit was, as usual, a great attraction at the Exhibition and the firms of F. T. James and Company, and the Maritime Fish Corporation, Ltd., had excellent shows. The Department of Marine and Fisheries promises still greater efforts for the next exhibit and hope to make it more attractive than ever. We back them up heartily in this work.

The speech of the Hon. J. D. Hazen, Minister of Fisheries, at the Fisheries Day luncheon at the Exhibition is published elsewhere in this issue and is commended to our readers.

THE CONSERVATION COMMISSION.

According to the Auditor-General's report for 1915, the Commission of Conservation for the year absorbed $92,999.93 of the peoples' money. The accounts of the Commission have been kept with scrupulous exactitude —the common public can tell that at a glance by looking over the report. Soap, towels, ice-water, street car tickets, etc., have all been credited and one only needs to read the odd figures of the total to realize the care taken in the book-keeping.

The Commission is under the Chairmanship of the Hon. Sir Clifford Sifton, K.C.M.G., with Mr. James White as Deputy Head, Assistant Chairman and Secretary. For these triple duties, Mr. White draws a salary of $5,000 per annum. Numerous other officials draw salaries ranging from $100 to $4,000 for the year's work. The total salary account of the Commission amounting to $19,887.56 was the expenditure for the year 1914-15.

Ninety-three thousand dollars—all but seven cents —have been spent for the purpose of "conserving" the various natural resources of Canada among which are included the Fisheries. According to the dictionary, "conversation" means "preserving, guarding or protecting." For a long time past we have been trying to figure out in what manner the Conservation Commission has been preserving, guarding or protecting the Fisheries of this country. As far as we can see, it hasn't done one single, solitary thing for the Fisheries which could not be done by the Department of Marine and Fisheries.

The Commission holds a meeting every year at which numerous scientists with a string of letters after their names get up and read papers chock-full of scientific technicalities and theoretical recommendations. The papers are discussed, resolutions are passed, but seldom acted upon, and the whole thing dissolves into a cientific discussion which amounts to nothing. The Commission has no power — it can only recommend. What use is it to the Fisheries?

The Fisheries Department already have an Advisory Board of practical men selected from various fishing centres delite who meet twice or three times yearly to discuss problems connected with the Industry; there is the Select Standing Committee of Marine and Fisheries composed of parliamentary members with Mr. Clarence Jamieson, M.P. for Digby as Chairman; also the Biological Board under the jurisdiction of Professor Edward E. Prince, Dominion Commissioner of Fisheries.

With these three departments—all of them quite capable of handling any problem connected with the Fishing Industry—what need is there for the Conservation Commission as far as the Fisheries are concerned? To our mind it is a useless waste of money which could be better devoted to strengthening the Departments already mentioned.

What the Fisheries need more than anything else is one standing Fisheries Commission working harmoniously. Let it be composed of four divisions: (1) Practical fishermen—one selected from each particular branch of the Industry on the Atlantic, Great Lakes, and Pacific. These should be actual fishermen — not vessel owners or employers—and they should be recommended by their fellow workers and not by politicians. (2) Representatives of concerns engaged in commercial fishing. The President of the Canadian Fisheries Association should be included as representing the Association. (3) The scientific side of the Fisheries could be represented by Professor Prince and other biologists. (4) Departmental officials.

These four branches make up the personnel of those directly interested in the Fisheries of Canada. Let them meet at least twice a year and discuss the existing problems and pass their recommendations. Then we'll get something done.

There will be no danger of duplicating then. The recommendations will be made by men who know what is best for the interests of the Fisheries and it is a certainty that more DEVELOPMENT and less "conservation" will be the result.

Our Fisheries are more valuable now than ever. The consumption and demand has increased wonderfully during the last two years. The present is the psychological time for strong hands to hold the reins and guide the Industry along the road of progress. Let's have done with useless, futile Commissions and get down to business with something that's worth while and worth the money spent on it.

ARE PACIFIC HALIBUT BECOMING SCARCE?

We have had the pleasure of reading a monograph on the above subject by Mr. John N. Cobb, Editor of the "Pacific Fisherman." In it, he proves that halibut are becoming scarcer in Pacific waters, and advocates a closed season for the fish during their spawning time in the winter months.

We believe Mr. Cobb is right. The heavy fishing for Pacific halibut has continued for some twenty-five years and the catches have been enormous. The inshore banks are becoming played out and vessels are faring further afield in order to get trips. At one time, vessels could load up in a few days on Flattery Banks or in Hecate Straits. Nowadays, vessels are fishing halibut off Yakutat in the Gulf of Alaska and as far west and north as the Shumagin Islands.

Halibut are still plentiful, but the schools are more broken up. Trips of 100,000 pounds by either dory-vessels or long-liners are not picked up as quickly as in former years and the general opinion of fishermen is that the fish are thinning out.

The fish are not extinct yet — not by a long way — but means for their preservation should be promoted now. It would necessarily have to be a matter of International agreement between Canada and the United States, and the promulgating of laws for a close season would have to be carefully considered as many thousands of halibut fishermen and hundreds of vessels would be out of work and laid up during the closed months.

Unlike the Atlantic, there is practically no alternative fishery on the Pacific which halibuters could engage in during a close season. The cod-fishery offers some prospects, but not enough, at the present time, to employ the halibut fleets of Canada and the United States to any profit.

A commencement might be made of a limited close season—say, four to six weeks in the most favorable month during the active spawning season of the fish. During that period, the halibut vessels could be given their annual overhaul.

The problem affords much food for thought and should be acted upon right away. It's no use locknig the stable door after the horse has been stolen.

ENTER—THE GRAYFISH.

You probably never heard of it before, but it is an old friend—or rather, a foe. The grayfish makes the fishermen use profane language; the voracious fish that scoffs every bait on the hooks; that chases all the other fish away. How well we know him! After spinning out four tubs of trawl with dreams of a big "jag" and full decks, we commence to haul in and find "grayfish" on every hook. Then it is "slat! slat!" and "damn!" until the end line comes over the dory roller.

Yes! You've probably guessed it. Grayfish is the new trade name for common, ordinary, and much becursed dogfish. The United States Bureau of Fisheries are the god-fathers and god-mothers at the christening, but it is a christening to some purpose. The Bureau have been making investigations with a view to utilizing dogfish. It can't be exterminated, but it can be made marketable—but not under the name of dogfish.

As grayfish, it can be prepared for food—and palatable food at that. The livers can be rendered into good fish oil; the fins make gelatine; the eggs are useful in leather dressing, and the fish, itself, rough-salted, makes good crab bait. The skin is useful for novelties and may be converted into leather after some experimenting. As fertilizer, dogfish has already been utilized.

Cheer up, trawlers! The day is coming when the hated pest will be worth catching. Here's to the day!

HOVE-TO

When it's snowin' an' ablowin' in a rousin' Winter breeze
An' th' vessel's dancin' lively in th' roarin', crestin' seas.
With a two-reef fores'l on her, lyin' on th' starboard tack,
That's th' time th' hardy trawler gits a chanst to ease his back.

Aye! They're smokin' an' they're yarnin', fore'n aft, down below.
Or muggin' up or snoozin' while th' wild winds blow.
Th' gulls can't fly to wind'ard, an' th' liner skipper swears,
There's a ruddy blinder ragin' as into it he tears.

Aye! they're makin' heavy weather in them gaudy steamin' tanks,
When there's hell an' blazes blowin' 'crost th' Western Ocean Banks,
But th' tiny little fisherman's as snug as she kin be,
An' her gang's aswappin' guesses what th' cook 'll have for tea.

Thar' ain't no breeze kin scare them when she's headin' off th' shore,
Thar' ain't no seas kin daunt them though they board her by th' score.
They laugh at windy weather, fog an' rain, an' bitter cold—
For they're all blooded Bankers, boys, an' hardy men an' bold.

—F. W. Wallace.

ELECTRICAL "CHINK"

The new electric "Iron Chink", used in dismembering fish and in the sanitary processes of preparing canned salmon for the market, recently installed in a Puget Sound salmon plant, is a refreshing item to those who have visited these industries.

The "Iron Chink" enables the plant to put out one million cans of salmon each twenty-four hours. The electrification of other canneries is to follow. This will mean a highly increased output and the operation of these immense canneries in a thoroughly sanitary manner.

Canada's National Fish Day and Fish Days

By J. A. PAULHUS, Chairman Publicity Committee, C. F. A.

IT has been decided that Canada's next National Fish Day shall be Tuesday, October 31st. It will also be the inauguration of a new departure, which has been thoroughly discussed and approved by the publicity committee of the C. F. A., i. e., that, hereafter every Tuesday shall be a Fish Day, as well as Friday.

The separating of Fish from Friday, exclusively, should meet the approval of the consuming public, and also be well received by fish producers and dealers. The advantages that will follow this change are many, and obviously will appeal to the community at large. The housewife, the caterer to cafes, hotels and large institutions, will each find it easier to provide more varied and economical bill-of-fares for their respective households. After the usually hearty meals of meat, game, etc., served at the week ends, the change to well cooked and dainty, appetizing dishes of Fish food will be fully appreciated by the "inner man," and will be a boon to health and comfort.

THE fish producers and traders should also welcome the adventure with a smile. As it is, it often happens that from some corners of the fishing points it is difficult to market the fish in the fresh condition only once a week. Fish that is caught either late in the week or very early has to be kept fresh for Friday's trade, and when there is no plant for curing, this is often disastrous for the fish trade generally. This fish, when marketed, has lost its crispness and flavor and brings disfavor on the producer and fish trade alike. The trader will be able to receive his supplies more frequently and consequently in a finer condition. By using fish displays, advertising cards, attractive signs, and with proper accommodation to keep his fish in good condition, improved results will be obtained and a profitable business the outcome.

Under the active work and pressure of our Transportation Committee, better facilities have been acquired of late from railway and express companies for the carrying of fish from the shores of seas, lakes and rivers.

Rates, service, refrigeration attention, and all matters that pertain to the delivery and transportation of the product have been discussed and provided for and made as perfect as possible under the circumstances.

The Executive Committee of the Canadian Fisheries' Association has at heart the success of the fish industry. Since the formation of the Association, from the president to the last member of the Board, everyone has contributed his time, energy and ability to foster and advocate the fish interests with an earnest and sincere devotion to the cause. Not because of some individual or collective benefit to the Association, but with the conviction and the courage of their convictions that in doing so they develop a patriotic movement which should help the economics of the country. We are at a turning point, economically speaking. Meats, butter, eggs, will be skyhigh prices this winter. We are threatened with a meat famine before long. Revised statistics just issued point to quite a decrease in the number of heads of cattle available for food in Canada and in the United States.

IT means that from now on meat products will be a luxury to be enjoyed by the wealthy classes only. The time for action has come. What would you think of a tradesman with a full store of goods on which he could realize handsome profits who would close his door and bar the windows of his store? Is not that the situation of Canada? We have in store along our sea coasts, in our lakes and rivers, immense reserve of all species of edible fish. Fish is the only substitute for meat. Fish can be had in this country at all times and in all seasons, in abundance, and at a comparatively low cost. But Fish as a national asset has always been neglected. It is only since the inception of the C. F. A. that some educational work, some knowledge of fish possibilities as food, as a source of wealth for Canada has been expounded. Is it not time that all Economists, Educators, our Governments, Boards of Trade and Industrials, and the Press generally take the hint and help us to improve the conditions existing and arrest the food famine that is confronting us. We can avoid the disaster by advertising and using more fish as a food.

Everyone of us should start on October 31st to eat fish, to talk fish, to preach fish and keep at it until doomsday.

MARKET IN EGYPT.

The representative of a London firm who visited Alexandria, Cairo, and Khartoum in May reports that very little or no meat is eaten, but a large demand exists for dried fish, such as bloaters, red herrings, kippers, and mackerel.—Fishing News.

The Beginning of the Pacific Halibut Fishery

Mr. John N. Cobb in the June Transactions of the American Fisheries Society gives some interesting particulars regarding the early days of the Pacific Halibut Fishery.

The present extensive halibut fisheries of the Pacific owe their inception to the publication in 1866 of a series of very optimistic letters in the Cape Ann Advertiser, of Gloucester, Mass. The enterprising spirit of the New England fishermen prompted them to consider the matter favorably, particularly as they knew from the most reliable sources that halibut were abundant off Cape Flattery at certain seasons. The native fishermen had fished here for their own use (the surplus being sold to the whites living on the shores of Puget Sound) for many years previous.

The pelagic fur-seal fishery, which was then lawful and quite profitable, was another strong inducement for the eastern fishermen to make the venture of sailing "around the Horn," for some believed that this offered unusual opportunities for financial success, while they thought the period between sealing seasons might be profitably utilized by engaging in halibut fishing. The men who entered upon this experiment were among the most skillful, daring and adventurous of their class and, so far as catching fish was concerned, none could be found better fitted for the work.

In the fall and early winter of 1887, three schooners sailed from Massachusetts for Puget Sound. These were the Mollie Adams and the Edward E. Webster, of Gloucester, and the Oscar and Hattie, of Swampscott. The two former were owned by Capt. Sol. Jacobs, who had achieved fame as a mackerel fisherman, and who, after dispatching his vessels, crossed the continent in time to make the necessary business arrangements, pending their arrival. The Mollie Adams made a good passage and reached der destination without mishap; but the Webster met with an accident to her spars before rounding the Horn, put into Montevideo for repairs, was delayed, and finally arrived on the west coast late in the season.

The Oscar and Hattie reached Puget Sound some time later than the Adams, but in time to engage the halibut fishery, upon which she entered making her head quarters at Port Townsend. Owing to the want of a suitable market, and to the fact that the schooner had to go to Tacoma to ship her catch east, the fishery from this place was followed with loss rather than profit. The Oscar and Hattie carried 6 dories and a crew of 14 men.

About two-thirds of the catch was sold fresh and the remainder was fletched. The result of the season's work in 1888 was 240,000 pounds of fresh and fletched fish, with a value (at the prices paid the fishermen) of $7,600. The average price received for fresh halibut was 3 cents per pound, and for salt fish 3½ cents per pound.

The catch shipped east by the Oscar and Hattie was the first shipment so made, and it went forward by the Northern Pacific railroad. The ice used cost $22.50 per ton (more than five times the present cost of ice), and the high freight rates charged by the railroad took all the profit of the shipment.

On July 24, 1888, the schooner Mollie Adams left Seattle, bound north on a fletched halibut trip, the first one of its kind that had been undertaken on the Pacific Coast. But few halibut were captured until the schooner arrived off the southern extremity of the Queen Charlotte Islands, where they were found in great abundance and of larger size than on the grounds off Cape Flattery. A few of those taken were estimated to weigh over 300 pounds each. About half of the number obtained were large enough for fletching, the remainder being used as bait or thrown away. The fishing was carried on in depths of only 30 to 40 fathoms.

On the morning of September 8, the Adams having "wet" all her salt, started for home with 150,000 pounds of fish. In the meantime, after a lot of trouble, her owner, Captain Jacobs, had arranged for a rate of $1.25 per hundred pounds for the transportation of the fish across the continent to Gloucester. After deducting expenses the members of the crew received $175 each or at the rate of nine dollars a day for nineteen days' fishing.

It was soon found that Port Townsend was too remote from railroads for shipping purposes and in a very short time Seattle became the headquarters of the schooner fleet. The New England Fish Company, an American firm, soon after located at Vancouver, British Columbia, while the International Fisheries Company, located at Tacoma, Wash., put on fleets of steam vessels, and have since been important factors in the development of the industry.

THE SEA GYPSY.

I am fevered with the sunset,
I am fretful with the bay,
For the wander-lust is on me
And my soul is in Cathay.

There's a schooner in the offing,
With her topsails shot with fire,
And my heart has gone aboard her
For the Island of Desire.

I must forth again to-morrow!
With the sunset I must be
Hull down on the trail of rapture
In the wonder of the Sea.

Richard Hovey.

ADVERTISING FISH

COMPILED BY F. WILLIAM WALLACE.

For the Benefit of our Readers in the Trade who are too busy to make up Advertisements in advertising Fish Day in their districts we recommend the following:

TRY FISH

FOR A CHANGE

IT COSTS LESS AND IS JUST AS NUTRITIOUS AS MEAT

THE WATERS OF THE PACIFIC, ALTANTIC AND GREAT LAKES OFFER YOU DELICIOUS FOOD OF INFINITE VARIETY.

We make a specialty of stocking extra lines of fish foods for **TUESDAY** and **FRIDAY.**

'Phone or call.

If you would Save Money in Housekeeping

EAT MORE FISH!

Canadians have yet to learn the value of fish as an economical and palatable food

Try it Now!

We stock every variety of sea and lake fish food with special lines on **TUESDAYS** and **FRIDAYS.**

Call in or 'phone your order.

Fish Should be Eaten at least Twice a Week!

THE HOUSEWIFE WHO USES FISH ON TUESDAY AND FRIDAY WILL SAVE MONEY AND RELISH DAINTY FARE.

We carry special stocks received from the fishermen of the Pacific, Atlantic and Great Lakes for those two days.

'Phone or call.

The Epicures of Ancient Days were Great Fish Eaters!

We can offer you an infinite variety of food fish from the Pacific, Atlantic and Great Lakes at prices below those of meat.

Special Stocks on hand for Tuesday and Friday Dinners

Call us up on the telephone and let us tell you what we have, or call in and let us show you.

Tuesday is a Fish Day!

EAT MORE FISH AND SAVE MORE MONEY.
Let us serve you with fish from sea and lake. 'Phone or call.

Tomorrow will be Tuesday

You should have Fish for Dinner!

FISH SHOULD BE EATEN AT LEAST TWICE A WEEK—

Tuesdays and Fridays

We carry special stock for those days and can serve you with numerous varieties of salt and fresh water fish.

EAT FISH AND SAVE MONEY.

Phone or Call.

?

What Shall I Get for Dinner To-morrow?

HOW OFTEN HAVE WE HEARD THE LADY OF THE HOUSE ASK THE QUESTION!

Why not Give Fish a Trial?

WE CARRY SPECIAL STOCKS FOR TUESDAY AND FRIDAY.

Let us show you what we have in sea and lake food fish. 'Phone or call.

THE DOCTOR PRESCRIBES PLENTY OF GOOD COOKED FISH

Why?

Because the medical profession knows that fish is one of the most nutritious and palatable of foods.

TRY SOME FOR DINNER TOMORROW!

WE CARRY SPECIAL STOCKS FOR TUESDAY AND FRIDAY, FRESH FROM THE NET AND HOOK, AND OF INFINITE VARIETY.

A Palatable Substitute for Meat!

What ?

FISH!

Try it twice a week and save money—it costs less and is just as nutritious.

WE CARRY SPECIAL STOCKS FOR TUESDAY AND FRIDAY—FISH DAYS.

EVERY VARIETY IN SEASON FROM SEA AND LAKE.

'Phone or call.

What's the Matter with Fish?

Why not try it for dinner on Tuesdays and Fridays? ! 'Phone or call and see what we can do for you in fish foods.

THE FISHERIES' FORUM

LETTERS TO THE EDITOR.

PRESERVATION OF FISH.

Primrose Club, St. James's London, England.
August 28th, 1916.

The Editor, "Canadian Fisherman" Montreal.

Sir:—

Kindly permit me to make a few observations in reply to an article in your last issue, (August) headed "Danish Fish Refrigeration Process." It is not, by any means, a "new method", as you describe it. Demonstrations of exactly the same kind were given in Fulton Markets, New York, about two years ago, and fully reported in "Ice and Refrigeration." It seems to have died a natural death, because, like the Danish one, it had serious defects.

One defect is the rapid freezing of the fish as soon as it comes in contact with the extremely cold water. This shuts in the specific or latent heat which, in the case of chilled meat is frequently the cause of bone-taint; and so it is with fish.

In this connection let me refer to a report made to the New Zealand Government, two or three years ago, by Professor Prince, Commissioner to the Canadian Fisheries Department.

In his report he strongly deprecates the method of hard freezing, on the ground that, in the case of most fishes it destroys the flavour and texture to a great extent. He goes on to say, "There is also the trouble of bone-taint to reckon with, in the frozen article."

The Danish inventor, according to your article, claims that the tissues are not broken. It might interest him to know that, a few years ago, a distinguished German Scientist, after a series of tests, made the following discovery. He found that, if the fish were gradually cooled, the blood became like snow, and remained harmless in the tissues, whereas, if the fish were rapidly frozen, the blood became like crystals, and pierced the tissues, destroying the flavor of the fish. My own experience confirms this contention.

Another point I should like to refer to, is the comment about slime. Live slime is a preservative, but, in regard to dead slime, I feel inclined to exclaim "Good Lord deliver us." Dead slime is teeming with millions of germs, enough to destroy the fish. They should be thoroughly cleansed before being put in the tanks, and the water should be sterilized. The noxious gases should also be extracted from the fish.

About the only sensible thing that the patentee says, is in reference to the injurious effect of air refrigeration, but I notice that neither he, nor the French Government Inspector-General of sea-fishing, has made any remark as to how long the fish would keep in a fresh condition, after treatment. They have been discreetly silent on that point.

I purpose visiting Montreal in a few weeks, and will probably give you some information of a really **new invention**, that will stand the test. The Canadian Board of Trade and Commerce have the particulars in their possession.

Yours truly,

I. R. HENDERSON.

HENDERSON'S PATENT PROCESS FOR PRESERVING FRESH FISH.

Extract from Report of Test made by the Board of Agriculture and Fisheries, London, England.

The fish treated by the Henderson Process on the 8th and 9th February last, consisted of haddock, cod, plaice, and sprats received from Billingsgate Market; freshly caught whiting, plaice, rays, and rainbow trout. The fish were stored without ice or other preservatives in a room at the offices of the Fisheries Division of the Board, at 43, Parliament Street, S.W.,, and were examined and sampled as food on successive days. The temperature of the room was not unduly high nor particularly low for the time of the year, varying from 47 deg. F. to 52 deg. F. in the daytime, but the conditions with regard to ventilation would compare unfavourably with those obtaining in the case of commercial transport or storage of fish.

All the fish remained in unquestionably excellent condition for four days, and some cod and haddock eaten after eight days of storage were found to be in a good state. As there was some difference in freshness between the various kinds of fish before treatment, it is not possible to make any precise distinction between them as to their keeping qualities afterwards. The cod and haddock kept best, apparent, in view of the fact that they maintained their low temperature for the longest time in virtue of their greater bulk, but the sprats remained in excellent condition for five days.

Attention may be called to the fact that the cod, haddock and sprats were obtained in the open market at Billingsgate, without any special arrangement for securing unusual freshness.

The liquid used in the tanks was found, on analysis, to consist of a solution of common salt with a very minute and quite innocuous quantity of a volatile re-agent, namely, .005 and .001 per cent. in the first and second tank respectively. This re-agent was not present in sufficient quantity to be determined in small samples of the fish.

It is to be understood that the plant used in these tests was small compared with that which will be necessary for the treatment of large quantities of fish.

It may, however, be said that there appear to be no grounds for doubting Mr. Henderson's claims as to the practicability of the process on a commercial scale.

Note:—

1.—The above test was carried out with an incomplete plant through inability to secure part of it during the war.

2.—Some of the fish brought for treatment were three or four days old, and had been on ice during that time, making the test more severe.

3.—A quantity of fish were ungutted and moved with the rest.

4.—The cod and haddock were two or three days old before treatment, but kept fresh for eight days after treatment, according to the test. The sprats were not fresh when treated, but kept in excellent condition for five days, although in a badly ventilated room all the time.

5.—The fish are not salt, although treated in tanks containing a percentage of common salt. They are perfectly fresh, as the chilling to which they are subjected prevents the salt impregnating the fish.

Montreal, August 26th.

Editor of CANADIAN FISHERMAN,

Dear Sir:—

As a subscriber of your Journal and as one fond of fresh fish. I beg to make a few suggestions that may through your publication reach some of our eastern fishermen.

Murray Bay, St. Irene, Cap l'Aigle, Les Eboulement all are filled every summer with visitors, and outside of a few trout and poor smelts, fish is not to be had except from Quebec and which by time reaches the consumer is off—not firm. I mention the above points because I knew of them for past twenty-five years, but I am assured that there are many other points such as Cacouna, Metis, Riviere du Loup, where a regular supply would be in demand by hotels, boarding houses and cottages, and I believe if an agent were to visit these places, say in mid-June, they could secure regular standing orders for weekly, or oftener, shipments,

Fish will never be popular as a food from choice until. a way and means can be found to get to the consumer fresh. To see fish in winter piled up in old boxes or baskets outside shops is enough to drive all from eating fish, except those forced to from Religious views. I have thought it might be tried on the plan as the "Yeast Co's., who make daily deliveries to all the shops and take away any left over from the delivery of day before.

There are some good fish dealers here, but even with the very best I have at time considerable trouble to get good fish and although no objection to take back, still not satisfactory to consumer.

We try in winter to have fish every Friday and I take fish for every Sunday evening meal and many mid-day lunches. Some better plan than exists to-day must be tried if Canadian fish is to be popular.

Yours truly,
J. WIDMER NELLES.

THE FRENCH EMBARGO ON LOBSTERS.

(By Our Halifax Correspondent.)

On May 17th it became known here that the French Government had decided to restrict the importation of many luxuries into their country. Among them were included lobsters; and as Canada had usually provided all the requirements in this line it left our lobster packers with approximately 40,000 cases for which other markets would have to be found.

Later, it was found that a proviso had been made permitting the importation of any goods bought by the French trade prior to 6th April last. Thus it was estimated that about 10,000 cases could be disposed of, but it still left 30,000 cases which the trade could not sell elsewhere without reducing values generally.

Those in the trade calculated that a reduction of about two to three dollars per case would be required to place these goods in normal times, but present conditions being abnormal and the danger of British and other authorities creating a simliar embargo caused the less speculative dealers to desist buying to the usual extent.

Meantime the trade here and through its representatives abroad assisted by the efforts of the Department of Trade and Commerce of Canada, the Chambers of Commerce in England and France, and the presence of Sir George E. Foster in Paris, made representations to the French Government giving reasons why this embargo should be removed.

Many of the arguments were ingenious: all of them were true, and some of them were conclusive and irrefutable, and are worthy of being retained as a basis for similar situations that are liable to occur in the trade again.

However, the fiat had gone forth, and the conservatism of European Governments being so well known very little hope was entertained for its withdrawal and business had to be done while the consuming season existed.

On 21st July, however, the trade were rejoiced to receive advices from the Canadian Trade Commissioner at Paris that the embargo had been withdrawn. This news was welcomed as an indication that no such restrictions from France or any of the allied nations would be likely to occur again. The damage to the market value of the lobster pack for 1916 had been done and was irrevocable, but it cleared the atmosphere for 1917 and future seasons and restored confidence to the entire business.

Unfortunately, later reports do not confirm the abrogation as it was then understood because it now transpires that the edict remains in force, permits merely being granted for the importation of sales and purchases during the remainder of this year. The outlook for the future, therefore, is rendered very uncertain.

The pack of canned lobsters is more for 1916 than it was last season. This equalises the extra quantities sent to France under the permits referred to, but leaves the markets elsewhere practically unchanged.

The trade must revive its agitation for the complete annulment of this restriction, and the efforts and assistance of our Canadian Government ought to be continued with vigor. It means much to the people of these Maritime Provinces whether a market consuming from one-fifth to one quarter of the entire pack will remain open to them.

A Good Word from the Magdalen Islands

September 9th, 1916.

Dear Sirs:

Enclosed please find $1.00 in payment of our Subscription to The **Canadian Fisherman** up to June, 1917. We would not want to be without this paper for a great deal more than this amount.

Yours truly,

R. DELANEY & SON.

House Harbor,
Magdalen Islands, P. Q.

Canada's Commercial Fisheries Progressing

Extracts from the Address of the Hon. J. D. Hazen, Minister of Marine and Fisheries, at the Canadian National Exhibition on Fisheries Day, September 6th, 1916.

WHILE all the industries of the warring nations other than those that minister to the carrying on of the conflict, are suffering, the fisheries of these countries have been particularly interfered with. As an evidence of this, the fisheries of Great Britain have been reduced to less than one-third of their pre-war production.

At this point, it is fitting to emphasize that both the fishermen and the fishing vessels of the Old Land have done and are continuing to do their full part in defending the principles of liberty, of justice and righteousness, for which the Allies are contending. No full story can yet be told of what they have done. A large proportion of the magnificent fleet of steam trawlers and drifters, which before the war numbered about 3,000, was withdrawn by the Admiralty for mine-sweeping operations, and it is not improbable that fishing methods have been successfully applied by fishermen against more important creations of marine warfare than mines. To use the words of the English Board of Agriculture and Fisheries:

> "When the history of the war is written, the country will realize, as it has never realized before, the supreme value to an island maritime power of an organized fishing industry and a daring fishing population; for among the various causes which led to the restriction of the landings of fish, the chief has been the demand made upon the fishermen and fishing vessels for warlike services. It is not claimed that the fishermen who have readily given their labour, and in too many cases their lives, and the owners, who have given their vessels for the services of the state, have done more than their duty; but it happens that the assistance they were able to give was of paramount importance."

The fisheries of France have suffered even more than those of Great Britain, the greater number of the men and steam vessels having been transferred to the national service. Her Iceland fishery, which was formerly carried on by a large fleet of sailing vessels, has been practically suspended, and the steam trawling fleet, which came to Newfoundland waters, has been reduced to four.

Information about the Belgian fisheries is scanty; but we know that most of her trawlers have been operating from British ports since the war broke out.

On the other hand, the fishing industry of the Neutral European nations has been greatly stimulated by the war, the fishermen receiving previously unheard of prices for their catches.

OWING to the shortage in landings of fish in Great Britain and France, the exports from these countries have dwindled. This has reacted favourably on the price and demand in European Neutral and Allied markets for dried fish from this continent. It has also left the pickled fish markets of this continent comparatively bare of European products, and has so given an opportunity for creating a demand for the Canadian product. This particular point will be referred to more at length later on.

These favourable conditions have done their part in making the past fiscal year a banner one in the Canadian fisheries. The value of the fisheries was $35,860,708. This is an increase of $4,596,077 over last year, and of $1,192,836 over 1911-12, which was the previous record year. While this increase was mainly due to British Columbia and Nova Scotia, the two principal fishery provinces, there were increases in six out of the nine provinces. In Ontario there was an increase of over half a million dollars.

The following statement shows the value of the fisheries by Provinces in 1914-15 and in 1915-16, as well as the increases or decreases:

Province.	1914-15.	1915-16.		
Nova Scotia	$ 7,730,191	$ 9,166,851	+	$1,436,660
New Brunswick ..	4,940,083	4,737,145	—	202,938
P. E. Island	1,261,666	933,682	—	327,984
Quebec	1,924,430	2,076,851	+	152,421
Ontario	2,755,291	3,341,182	+	585,891
Manitoba	849,422	742,925	—	106,497
Saskatchewan ...	132,017	165,888	+	33,871
Alberta	86,720	94,134	+	7,414
British Columbia.	11,515,086	14,538,320	+	3,023,234
Yukon	69,725	63,730	—	5,995

Net Increase $4,596,077.

(+)—Increase. (—)—Decrease.

It has been stated in the press that, while there is an increase in value in the Canadian fisheries, there has not been an increase in production, the higher value being due to general increase in prices.

While there has been some increase in price in recent years, this conclusion is not in accordance with the facts.

While for many years there was a serious lack of progression in our Atlantic fisheries, this has been overcome, and in recent years, while there have been some fluctuations in the yields of certain kinds of fish, mainly due to weather conditions, there has been a continuous development of our fisheries.

Years ago the demand for seafish in the interior markets of the country was so small that the railways did not find it feasible to place cold storage transportation facilities at the disposal of shippers, and the express rates were so high as to make successful competition with the nearer United States sources of supply, such as Portland and Boston, impossible. Hence, the limited demand that did exist was largely supplied from the United States.

ALL this has been changed, largely on account of the transportation facilities made available to the dealers. By arrangement with the Department, the following special facilities are now available.

1.—A refrigerator fast freight service three days per week between Mulgrave and Halifax, N. S., and Montreal.

2.—The Department pays one-third the express charges on l.c.l. shipments from the Atlantic Coast to points in Quebec and Ontario, and from the Pacific Coast as far east as Manitoba inclusive.

3.—A limited express refrigerator service one day each week between Mulgrave and Halifax, N. S., and Montreal.

These facilities have not only enabled outside competition to be more than successfully met; but a rapid expansion of the Canadian demand, until now the business in fresh and mildly cured fish is one of serious importance to the railways. How the l.c.l express business has developed will be appreciated from the following: In 1909-10—the first full year it was in operation,—Department paid as one-third of the express charges on shipments from the Atlantic Coast $15,162, and in connection with shipments from the Pacific Coast $13,541. In 1915-16, the amounts paid in this connection had increased to $27,122, and $34,872 respectively.

These payments indicate but a small part of the total business, being done, as in addition to the l.c.l express shipments, every week several carloads of halibut and salmon are shipped by express from the Pacific Coast to Winnipeg, Toronto and Montreal, and the fast freight refrigerator car service from the Atlantic Coast has so developed that shipments for the Friday markets are now forwarded by it, involving the shipping in carload quantities each week. Moreover, during the whole winter season, the large quantities of frozen fish that are used throughout the country are shipped in ordinary freight cars.

When it was ascertained that the express rates, particularly from the Atlantic seaboard, were too high to enable a satisfactory business to be done, the matter was taken up with the express companies; but they were not hopeful that any great business could be worked up and they regarded their rates as reasonable. It was on this account that it was determined, on the recommendation of the Department, to allow a rebate of one-third of the express rate on l.c.l shipments, and it was hoped that when it was shown that a large business could be done if reasonable rates were afforded, the companies would, in their own interests, make such rates. This they are evidencing little inclination to do; but experience is showing that for through shipments a fast freight refrigerator service is efficient. The business has now pretty well developed to the point when it will be large enough to take care of itself, and the Government cannot be expected to long continue paying a portion of the transportation charges; but if the Express Companies will not afford satisfactory rates, it looks as if the dealers can turn, with advantage to themselves and hence to the consuming public, to the cheaper fast freight service. The Canadian Government Railways are doing all they reasonably can to make this service thoroughly efficient. The trains with fish cars attached are now being known as "Fish Trains", and the Railway Agents have special instructions to expedite their movement to assure their arrival at destination on time.

THIS general development of the fish business throughout the country is reflecting itself favourably on the fishing industry. The fishermen are becoming more and more alive to their opportunities and newer and better methods of operations are being adopted. As an illustration it may be pointed out that while a comparatively few years ago there were no motor fishing boats, there are now more than eleven thousand in use by our fishermen, and this number is growing rapidly.

While the herring that abound along our coasts in vast quantities are the equal in quality of those taken anyhere, owing to the inferior methods of curing them and the cheap, shaky barrels used, they have commanded but poor prices and the demand therefor has been small. The pickled herring markets of the United States, and to a large extent those of Canada, were in past years mainly supplied from Europe. Hence, the Canadian fishery has not been prosecuted with any energy. Instead of following the fish out into deep water, and catching them when they are in best condition, their capture has been limited to the time when they come inshore to spawn and when they are in inferior condition.

To remedy this state of affairs, the Fish Inspection Act was adopted. It came into operation on the first of May last year. Its object is to bring into use strong, well made barrels of a fixed standard size, and to lift the standard of curing and grading fish so that the cured article may secure the confidence of dealers and consumers in all available markets, and so command the highest prices. In short, to bring our pickled fish industry up to the standard of excellence and importance of that of Europe. Our geographical position should make it impossible for others to successfully compete in supply the markets of this continent. If we do not secure these markets, it will be owing to failure on the part of our fishermen and packers to carry on their operations according to improved methods. Every effort is being made to impress this upon them. A staff of competent Inspectors has been appointed. These Officers not only inspect and brand such packages as are in accordance with regulations, but they act as instructors to the packers.

With a view to demonstrating the desirability of fishermen engaging in offshore herring drifting, as it is done in Europe, and at the same time locating the offshore schools of herring, the Department is this year operating a steam drifter. The experiment is proving quite successful. Every night that weather permits, it is making catches ranging as high as 76 barrels. It has also picked up fair quantities of mackerel.

LAST year, a start was made in packing fish for the Government brand. Fish that were properly packed brought highly satisfactory prices, and this year a considerable number have arranged to have their fish inspected. The principal season is from the middle of August onward, and the indications are that on a large portion of the Coast, packers will put up their fish for inspection and branding.

The value that our herring fishery alone may become will be appreciated from the fact that in normal times the herring fishery of the British Isles is worth from $20,000,000 to $30,000,000 annually,—upwards of two-thirds the value of all our fisheries at present, and we have the fish in as great quantities and of as good quality as in Europe.

The opening up the G. T. P. has made Prince Rubert the gateway to the greatest halibut fishing grounds in the World. Heretofore the fish were shipped to the eastern markets of this continent through Seattle and Vancouver; but as the principal fishing grounds are away north, Prince Rupert is about 600 miles nearer than Seattle. Fishing vessels are consequently coming to Prince Rupert in ever growing number to sell their catches or ship them eastward, and the day is hastening on when Prince Rupert will become the Grimsby of the Pacific Coast.

In this connection it may be well to point out that the halibut fishery is being over exploited, and unless sufficiently protective measures are soon adopted the fishery will be seriously depleted. As the fishery is conducted on the high seas, and as the United States engages in it even more largely than does Canada, an international arrangement is necessary to be effective. Hence, the matter has been taken up with the United States Government, and it is anticipated that a satisfactory arrangement will be reached in due course.

Much has been done to expand the markets for fish in this country, and much in that direction has been accomplished; but what has been done is merely an index of what may be achieved. Too few realize what a nutritious food fish is and how cheap it is compared with other foods. Too few housewives have taken the trouble to learn how to properly prepare it for the table, simple though the various methods are. Fish is a home product that costs nothing to cultivate. It is an import for which no money goes out of the country, and the capital invested in the business, keeping in view the yield, is smaller than in any other food producing industry. It is, therefore, essentially a cheap food. It is also one of the most nutritious and most digestible foods. The ease with which it is masticated, the readiness with which it emulsifies in the stomach and is absorbed, makes it a most desirable food for all classes of people. Fish fresh from the water and in perfect condition can now be obtained in practically all parts of our country, and in the remotest parts canned fish, with all the qualities of fish fresh from the water retained, may always be had. The sooner this is realized and acted upon by the people the better it will be for them, the better for the industry and the country. The Fisheries Exhibit and restaurant at this exhibition are no doubt doing their part to hasten that day.

THE fishermen themselves also have their needs. As will be seen from the foregoing considerable is being done to educate them and to encourage them in the adoption of better methods; but some definite system of technical education in lines connected with their work is needed. This is a matter that must receive attention when the days of peace return. Fishermen have not had sufficient pride in their calling, and in too many instances their sons have been encouraged in the adoption of other professions. There is consequently a shortage of skilled fishermen, and more fishing vessels would have gone to sea in recent years had there been available suitable fishermen to man them. When the war is over, it would be a good thing if skilled fishermen wishing to emigrate from desirable European countries would turn their faces to Canada. They would find good oportunities and the country needs them.

The contrast between the yield of the sea and the land is rather aptly expressed in the old Sea Song:—

"The husbandman has rent to pay,
  Blow winds, blow!
And seed to purchase every day,
  Row boys, row!

But he who farms the rolling deeps,
  Though never sowing always reaps.
The ocean's fields are fair and free,
  There are no rent days on the Sea."

IN NEWFOUNDLAND.

(From our own Correspondent.)

"The Canadian Fisherman" is now recognized here as the leading fishing authority; and the local press makes frequent quotations from its columns. Its usefulness is becoming more apparent with every number received, and this arises from the fact, as "Colonial Commerce" says that "what is said of Canadian fishermen applies equally to those of Newfoundland, and the suggestions made (by the C.F.) might well be taken up by our own country". This appears by way of introduction to your editorial on "Technical Training for Fishermen".

The fact is that we need developments along this line more so than you do in the Dominion, as we are more dependent upon the harvest of the sea than any other country in the world. Our fishermen are splendid sailormen; but they lack the training to navigate a ship.

Formerly, things were better ordered in Newfoundland; and in the boyhood days of the writer we spent many an hour thumbing a Norie, as navigation was then taught in all the important centres around the coast. With the passing of the old teachers navigation appears to have become a lost art. The modern teacher does not seem to realize its importance; and though it is found on the syllabus of the Council of Higher Education, navigation is a much-neglected study in these days. We hope that the campaign which you have inaugurated will extend to Newfoundland; and that we shall see a revival of the study of the most useful branch of learning that Newfoundlanders can devote attention to. The "Fishermen's Protective Union" has made technical training for fishermen a plank in its political platform, and it urges the establishment of Night Schools where prospective mariners shall receive the training requisite for the natural avocation of most of our young outporters. We say "floreat at crescat."

The Fishery Outlook.

The fishery outlook on the whole is not particularly promising, though it is quite possible, if we have a continuance of such weather as we are enjoying at present, that we shall gather in an average harvest. The Labrador fishery among the "stationers" is one of the worst on record; and it is estimated that the whole catch will not reach 70,000 quintals to date.

Trapping has been over for some time, and some of the smaller crews have already returned. Those who have motor boats and can secure a sufficient supply of motor-fuel will likely fare pretty well, as the 'Sagona, which arrived from the coast some days ago, brings the report that fish is plentiful on the offshore grounds. At Cape Charles, Battle Harbor, Batteau, Indian Tickle, and the Wolf Islands boats average 10 quintals a day. Much of this is caught with jiggers, bait in some places being unobtainable. Only three cargoes of fish have been shipped from the coast; but several are due to go out presently. It was feared at the begining of the season that we would be up against a transportation problem again; but we understand that sufficient vessels are in sight to handle the catch of cured fish. A considerable quantity will be exported to the United States market as "salt bulk".

We have no definite report from the "floaters" of which some 600 are fishing between Mugford and Chidley. A few vessels have returned from Ryan's Bay with good fares, and they report fish plentiful.

Fishing to the northward has been seriously handicapped owing to ice — a rather unusual feature during the late days of August.

We have had such things happen before; and when the ice moved off, large voyages were secured. As the vessels are not returning, there must be a prospect of securing a voyage, to the northward.

Bankers that went down to the coast about two weeks ago with good baitings are reported as doing exceptionally well; and our old friend, Captain Tom Hollett reports 300 for three days fishing. Some time ago the "Metamora", Capt. Lewis reported for 700 quintals, but after taking a fresh baiting; she started for the coast; and is now probably around Indian Harcor or Batteau — favorite fishing grounds with Captain John.

The shore fishery, to date, has been "poor" in many sections, whilst it is from "fair to midling" elsewhere.

From Cape John to Cape Norman the fishery has been poor indeed. It has, also been short in Notre Dame Bay, around Fogo, Seldom, Tilting, Peckford's Island, the Wadhams and the north shore of Bonavista Bay.

Around Bonavista and in Trinity and Conception Bays the voyage seems to be about an average one. The southern shore, from St. John's to Cape Race is short; so, too, is Placentia Bay; but Fortune Bay reports the best shore fishery in many years.

It is estimated that the shore fishery to date is around 400,000 quintals, though some of our optimistic people place the catch at 440,000 quintals. Others say it is very much below an average voyage.

As we have before stated in these columns, we have no satisfactory method of arriving at the proper estimate of the quantity of fish caught; we get statistics only when it passes out to the foreign markets.

The last returns furnished by the Board of Trade are as follows:

	Quintals.
Ferryland	17,330
Placentia and St. Mary's	36,555
Burin	110,540
Fortune Bay	48,055
Burgeo and Lapoile	39,905
St. George's	7,130
St. Barbe	20,100
Twillingate	5,570
Fogo	5,330
Bonavista	36,040
Trinity	26,160
Bay de Verde (no report) estimated at	30,000
Harbor Grace	4,430
Carbonear	1.510
Port de Grave	2,760
Harbor Main	1,520
Straits	15,700

The scarcity of bait is felt in several sections; while to the northward squid is reported as being plentiful. Several Lunenberg bankers have recently been to land and secured good supplies.

The Bank Fishery.

There is considerable shortage of fish in the Bank fishery report; but it is hoped that the vessels that have gone to Labrador will secure bumper trips. All our vessels when last to land reported very stormy weather, and great scarcity of fish. Most of the banking trips around Fortune Bay have been sold as salt bulk; and American buyers are picking up every available quintal. We notice that Cunningham and Thompson ,of Gloucester, have secured the services of one of our local mariners to take a cargo of fish across the herring pond—to a Mediterranean port, we are informed. This has caused a little sensation among local shippers, and the "Mail and Advocate" has a lengthy editorial on the subject, and it asks some very pertinent questions. It is not improbable that the discussion will eventuate in an inquiry of some sort, as the Captain whose services have been requisitioned is a member of the Pilots' Association and is, to all intents and purposes, a Government official.

The Markets.

New fish is coming into the local market, and during the past week, several cargoes arrived from northern and western ports. $6.75 per quintal was paid some specially good lots; but for low grades the price varied from $5.75 to $6.25. There are several buyers from St. John's houses in the outports, and we understand some of them are paying $6.60. It seems that the price of shore merchantable will reach $7, if not a higher figure shortly. All depends on the state of the markets abroad, some of which at the moment are not attractive. Buyers on the coast of Labrador are paying $5 for "Labrador cure"; and there seems to quite a gamble down there owing to the keen competition. Some of our local firms were very badly "salted" last year by overpurchasing towards the end of the season; but, as the quantity of fish in sight is much below normal Labrador fish seems to be a pretty good speculation at the present time.

There is a good deal of anxiety about the Greek market which for some years has been absorbing a large quantity of Labrador fish. Piraeus has been a very profitable market; but it is feared that owing to difficulties existing in Greece at the present time, the prospects for fish dealers are none too encouraging. We had a similar difficulty last year, but we came out of the fray pretty well.

"Colonial Commerce" in its last issue, discussing the markets, says that it would be well for our fish merchants to again turn their attention to Great Britain. We formerly sold a large quantity of Labrador fish in Exeter, Plymouth, and Bristol; but we were pushed out of these markets by the Icelanders. An English agent states that he sold 55,000 quintals of Labrador fish in the West of England before the Icelanders got a hold on the market. Should we be able to regain it (as we should) there will be less anxiety over the market at Piraeus.

It is felt here that the British Government should help us out in this matter. We are responding nobly in the way of contributions of men and money to the Cause of Empire, and naturally we feel that some effort should be made by the Home Government to keep us afloat financially. It is said that Premier Morris, who has been in England for some months, has been making an effort in this direction. We hope that he succeeds. It was hoped that he would have effected, through the British Government, some arrangement with France as to the admission of codfish into the Havre and Bordeaux markets; but there is no indication that we have made any progress in the matter. We have made certain concessions regarding the exportation of herring to St. Pierre; but we are still awaiting concessions from France with regards to exports of codfish.

During the month of August our shipments of codfish were:—

FROM OUTPORTS:

Dried Fish.

	Qtls.
To Europe	41,340
To Canada	4,764
To United States	202
FROM LABRADOR:	
To Europe	8,670
	54,876 qtls.

Also

Pickled Fish.

	cwts.
To United States	40,697
To Canada	500

And

430 brls of Herring.
20 brls of Caplin.

Dried Fish.

FROM ST. JOHN'S:

	Qtls.
To Brazil	7.853
To West Indies	18.695
To Europe	20.626
To United Kingdom	3.981
To United States	633
	51.788 qtls.

Comparative Statement of Fish Exports.

Dry Fish.

	Qtls.
1916	106.764
1915	85.590
Increase	21.174 qtls.

Pickled Fish.

	Cwts.
1916	41.197
1915	11.472
Increase	29.725 cwts.

Oils.

There is still a quantity of Seal Oil in the local market; but it is moving out rapidly. The export for August amounted to 228½ tuns. As regards the price of this commodity nobody except those in the trade know anything about it apparently, as there are only three refiners, two in the city and one in Harbor Grace.

Only one Whaling Plant is in operation, and this is located at Hawke's Harbor, on the coast of Labrador. To date 47 whales have been captured, and the greater part of the output has been conveyed to St. John's. The export of whale oil for August is 52½ tuns.

There is no improvement in the outlook for Cod-Liver Oil, and exporters are not looking for any at the moment. The present quotation is around $1.25. There is very little coming in to the the St. John's markets. and refiners in the outports are evidently holding on to what they have, feeling that the price must advance. They stand to lose considerable money if they are forced to sell at the present quotation. The Board of Trade recently issued a circular to the press stating that some party had been sending very unreliable reports abroad regarding the refined oil situation. The reports were certainly very lurid; and we understand that some of the news vendors are likely to fall into the hands of the censor. We shipped 94¼ tuns during August. Common Cod Oil is in fair demand at $142.50 per tun, with a likelihood of advancing. It is thought it will reach a higher figure presently. Quite a quantity of this grade of oil has been disposed of on the south coast to American buyers; and 479½ tuns went out from St. John's during the past month, the larger part of which went to the United States.

The Herring Trade.

Captain Parsons , of the Sagona. informs us that herring are again returning to the Labrador coast, and some fishermen from Conception Bay have made good hauls. Labrador herring are the finest variety known; and it is now about thirty five years since they disappeared from the coast. Previous to that date they were plentiful; and most of the up-the-shore planters depended on a herring catch as "the cream of the voyage". They disappeared within a brief period, and for the last thirty years we doubt if fifty barrels were taken in any year since. There is also a report of mackerel. The return of the herring to Labrador will create a new interest in the fishery there; it has been waning for the last quarter of a century.

The local market in herring is decidedly dull; and ordinary split are selling between $3.50 and $4. Most of these are being shipped to the West Indies. Some 3.500 barrels went out during August, of which about 500 barrels went to Nova Scotia ports.

Herring packers are not very enthusiastic about the outlook at the present time in view of the fact that some 17,000 barrels of Scotch cure shipped last winter are still held in New York. In addition to this several thousand barrels are held locally. Local dealers feel that they are being scapegoats of by American jobbers; and the "Trade Review" suggests that all our herring packers get together to prevent a hold-up. It says: "In a few weeks we shall again have the Hebrew sharp men coming along to Newfoundland urging the people to put up Scotch pack. assuring them that they will fetch from $12 to $16 a barrel in New York. It is time for our Board of Trade to formulate some kind of plan in shipping herring that will save our packers from being victimized.

Lobsters.

An article which appeared recently in the columns of the "Canadian Fisherman" is being widely circulated among our fishermen; and the Rotarian Club of Halifax deserves the thanks of the interested for affording such a crustacean address.

A rather new feature has intruded itself into our lobster industry: we have lately received a consignment of four cases from northern Labrador. These lobsters were caught near Nain, some 1,100 miles north of St. John's. We were under the impression, till now, that the northern limit of the lobster in these parts was the Straits of Belle Isle; but be shall have to extend the jurisdiction of the "homarus vulgaris."

The local question for lobsters at present writing is $16 a case for one pound tins flats. During the month we have shipped 1,785 cases.

In addition to the shipments above during August there were shipped from St. John's:—

184 barrels of Turbot; 101 barrels trout; 324 packages aslmon; 1,820 seal skins.

The Turbot was procured chiefly in Trinity Bay; and the Trout came from the Moravian settlements on northern Labrador, and represent part of the products secured in barter from the Eskimos. The Moravians have special privileges from the Newfoundland Government with regard to supplies imported for their Missions. These come in without payment of duty. The Eskimos pay for these supplies with furs, trout, salmon, and codfish and skin boots. These products are freighted to St. John's and sold by public auction every season.

Notes.

"The Mail and Advocate" says recently that talqual shore fish has advanced to $7 since Saturday; and it is probable that it will advance to $7.50 later. It estimates the shortage in the fishery at 200,000 quintals. It also states that $5.20 has been paid for some quantities of fish on the Labrador coast. It denounces the sale of salt bulk to American buyers at 3 cents per pound, and it says that much of this will find its way to the European markets as "Labrador soft", and it "would not be surprised if some of it finds its way to Spain and Greece as American shippers have many advantages over British shippers owing to war conditions." It says, too, that the Government should not permit the exportation of salt bulk to the American market unless intended for American consumption.

LUNENBURGER LOSES FIVE MEN.

Lunenburg, N.S., October 3.

The fishing schooner Leta J. Schwartz arrived here to-day and reported having lost five of her crew in a gale encountered on September 24th, when the vessel was on her way home from the Banks. The crew were engaged in taking in the riding sail when a heavy sea washed the deck from end to end, destroyed all the dories, and washed five of the crew overboard. The unfortunate men were all natives of Lunenburg County.

In a recent equinoctial blow on the Pacific Coast, several Japanese salmon fishermen were drowned from their boats at the mouth of the Fraser River.

TWO FISH DAYS A WEEK.

By T. W. C. BINNS.

If those who do not at present eat fish would at least once each week use fish in place of meat, and those who eat fish on Fridays would also substitute fish for meat on Tuesday, the quantity of animal food would in time show a decided increase. At the same time better health would be enjoyed by the majority of our population and at an absolute saving.

It should always be borne in mind that while beef is better for being allowed to hang sufficiently long to "ripen," fish should be used absolutely fresh. During the last few years the tendency among those dealers who retail fish has been to improve conditions. However fresh it may be, if the handling of fish is not done in a cleanly, sanitary manner, the goodness of the fish will not be appreciated. It is necessary, therefore, to purchase fish where it is not exposed to the dust and flies, but is handled by healthy men who are particular to keep themselves and their surroundings perfectly clean.

Importance of Cleanliness.

These men are more to be depended on when recommending their goods than those who are careless about their store and their own cleanliness.

Many who do not at present use fish to any extent would do so if it were not for the trouble of cleaning and preparing.

When next ordering your supply of fish, tell your dealer how you wish to use it, either baked, boiled or fried, with a request that the fish be prepared for the oven or the pan. This service is done without extra charge.

Fish should never stand in water. It spoils the flavor.

The gills of fish when fresh are red. The clearer the eyes the fresher the fish.

TECHNICAL EDUCATION FOR FISHERMEN.

The "Canso News" approves of our work.

In the July and August number of the Canadian Fisherman, there is an interesting discussion in reference to Technical Education for Fishermen.

"We believe that slowly but surely the fishing is beginning to occupy the attention, not alone of Governments but of all who are interested in developing the resources of the country more especially of the Province of Nova Scotia. No agency has done more to promote and foster this growing interest than the "Canadian Fisherman." One needs only to refer to the August number, and that number is not an exception from previous numbers to find evidence of this fact. Continually in every number since its first issue, Mr. F. William Wallace, the accomplished editor, has not ceased by editorial and by contributed articles, to put forth the most convincing arguments as to the value of fish as a food, the value of the fishing industry to the country and of the possibilities of profitable investment in the Industry. Neither has he stopped here, for scarcely does a number of the publication reach its subscribers which does not contain valuable and practical suggestions along the line of ways or means by which the desired end may be accomplished.

If you are interested in the fishing industry, you should be a subscriber for the "Canadian Fisherman."

CANSO AND A CITY CRITIC

The Old Fishing Town is not a Labrador "Outpost" —Nor is it Inhabited by the Semi-Civilized.

By CECIL BOYD.

IN a catchy couplet, oft-quoted since, the greatest genius of "auld Scotia" once expressed the wish, that we humans might be gifted with the power of "seeing ourselves as others see us." As he mentioned no exceptions, I suppose he would not exclude even those others who, either suffering from dim. defective vision, or gazing through the unsympathetic spectacles of ignorance or prejudice, give one hasty glance, rate us A1, —0 or whatnot, and think such a verdict sufficient to settle our standing for all time. This latter opportunity has recently been enjoyed by Canso citizens through the July number of the Canadian Magazine. Therein appears an article on Canso, which brought to the present writer's attention by several readers of it, prompted the above remark and those that follow. The said article, appearing under the real or assumed name of one, "W. Lacey Amy" is intended I presume, to be a present-day pen-picture of Canso; but whatever Mr. Amy's aims may have been, his article is neither able nor amiable, and in many important points, is far indeed from being accurate. With the kind permission of our good friend, the Editor of the CANADIAN FISHERMAN, we intend to briefly review the article in question, commenting on some of the most glaring of those inaccuracies. We undertake this task, not for our own amusement, which will be incidental, but in the interests of truth and justice, and as a protest against such deceptive descriptions being foisted upon unsuspecting reading public. public.

The article begins by setting forth the very unfavorable conditions, under which the writer of it made acquaintance with Canso, including his own physical exhaustion after a tiresome day's travelling. "Naples," says he, "might languish under such a burden. Canso certainly did." Somehow, we imagine that neither Naples nor Canso will languish to any very noticeable extent, as a result of falling under Mr. Amy's disfavor. Needless to note, we feel extremely grateful for being mentioned in the same breath with such a famous spot, even though it may have been meant "sarcastic."

"At the best of times Canso is not pretty," he writes. To a certain extent in some respects, this may possibly be true, but, because some of our streets may not be laid out with mathematical precision, or may be somewhat lacking in the profusion of shade trees that certain other towns enjoy, therefore, to go on and imply that there is nothing of the beautiful at Canso is, in our humble opinion, to display a lamentable lack of perception, where the beautiful is concerned. If we know anything about the correct use of words, "prettiness" is properly associated with a delicate or ornamental type of beauty, but is by no means the only style in which beauty may be clad.

Let us illustrate. Take, for instance, a scene at Glasgow Head or other prominent lookout, on almost any day. Is there no beauty in that vast sea, so unchanging in its nature, yet daily shifting from mood to mood. as. stretching in from the distant deep, it hugs our shores in its arms? Is there no beauty in the sight of the restless waves, caught in the grim grip of wind and tide, wildly racing in a ceaseless chase towards the surf-fringed shore? Or, in the sight of those same waves, lolling lazily in calm content, beneath a lazy Indian summer sun, or again, as the case may be, dancing and twinkling beneath a shower of silver radiance from a full-orbed moon? Is there no beauty in many of the scenes common to our coast, as the various craft that frequent it go battling bravely against adverse conditions, or slip along with the friendly aid of favorable elements? Surely beauty is not absent from such scenes, though it be of a stronger and more rugged type than a man-made mathematical prettiness. Neither do, we despise the latter, which is well worthy of cultivation. Then, we have seen sunrises and sunsets in this vicinity, that would call into play all the powers of a genius to portray, and the true artist would probably feel the result, even though wonderfully well-done, to conclude also that our visitor could not have fallen in with many of Canso's fair sex, for, had he done so, he could scarcely have resisted the temptation to grant us, however grudgingly, at least one exception to our general ugliness. There is room for improvement in the layout and character of some of our streets, and such improvement, we are pleased to note, is gradually taking place. For the fact that Canso has no slums, as the article kindly mentions, nor any special residential section, reserved for the elite, no apology is necessary. No matter how great the future growth of Canso may be, we hope that slums and snobbery may always be among the missing.

WE do not object to anyone publishing their fleeting impressions of a place (unfavorable though they may be) if they clearly indicate them as such, and confine themselves thereto. We must vigorously protest, however, against such snatched-up views and hastily formed ideas being palmed off as true-to-life pictures. Novelists and special writers of various kinds, who plan to write about some particular district and treat is truthfully, usually spend some little time in the locality to be described, studying the characteristics and peculuiar localisms. "Getting local color" it is called. If the work contemplated be an important one, even men of great genius, giants in their art, do not disdain to spend months, perhaps, or years in such preparation. What the local correspondent of a country weekly would fondly dub "a flying visit" was quite long enough for our fastidious critic to take in "all that we have and are," have been and have not, with special attention to the latter. But, although it only required a couple of days to secure this coloring material, it has evidently taken almost a couple of years to hatch out the resulting tintype, for that length of time has elapsed since the likeness-taker's visit. In the meantime, the features and complexion of the sitter have been changing to some extent, so that the finished product, overcolored and out-of-focus enough at the time taken, has become much more so in the intervening period, for even slow old Canso (snaillike in may be in some ways) has seen some changes and improvements in the past two years. At this point, I would like to prick my pen through a few samples of "local color" that are decidedly "off-color" in Mr. Amy's sketch. During a lifelong acquaintance with Canso and vicinity, I have yet to hear the words "Eastern," "Western" and "Tiddle" used in the connection quoted. In speaking of the fishing, a certain man or boat or whatnot, expressions like the following are used, "from the East'rd" (Easturd) "up t' the West'rd," etc. I cannot recall, my memory being in good working order, a single instance of Eastern and Western being used for Eastward and Westward. Also the narrow stream referred to, and section bordering it, is invariably spoken of as "The Tittle." These may be trifles, and no one would certainly not bother correcting them, were there nothing else objectionable, but after all, straws, it is said, indicate the change of wind, and trifles such as these are true indications of artistic truth and ability, for as a famous philosopher has said, "trifles make perfection but perfection is no trifle."

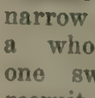
The general impression of Canso conveyed by Mr. Amy's write-up to anyone possessing no other and true knowledge of the place would be something, we imagine, like the general public's present idea of some lone Labrador outpost. It would seem to be a spot seldom blessed by the presence of a modern specimen of humanity, in fact, an almost wholly unexplored coast, inhabited by a peculiar, more-dead-than-alive tribe, part-simple, part-savage, half-child and half-outlaw, called fishermen. Strange to say, these, in some respects, appear almost human, for the city explorer fully armed with a mysterious black box, called a camera, a fountainpen and a mental vacuum, will be likely to find that these benighted folk "are eager to talk and answer questions and want to be photographed." In one point ,a striking resemblance to the Kentucky mountaineer may be detected, especially as the latter is seen in melodrama. This is their love for distilling and smuggling liquor. In fact, these spicy sports, together with meeting the daily boat nightly, form their sole means of amusing themselves.

NOW, Canso in her development certainly labers under a heavy burden in regard to backward conditions of transportation and communication, but she is not nearly so primitive as portrayed therein, nor is she so wholly content with the handicap, loving the chains that bind her, as this visitor asserts. While more energetic and concerted action might have been taken in the past, yet more than one voice has been heard setting forth our claims. In terms of actual results achieved, these may have seemed like voices crying in the wilderness, but so far as expressing the general wish of Canso citizens, they spoke in perfect harmony with the whole, though in the stress of the present days, other things take precedence. Our political candidates, when, at long intervals, they pop up to jolly us for our votes, wax eloquent, or as eloquent as their abilities will permit, over the possibilities of the wonderful natural resources at our doors. Each in days gone by used to carry a complete variety of Guysboro railways, as a permanent stock in trade, showing that they thought the people desired something done in that direction. Up to date they do not seem to have accomplished much towards securing this desired boon. Generosity prompts us to suppose that the blame does not rest wholly with them, but is shared by an unkind fate, and we continue in the hope that a much kinder fate may soon preside over the railway destinies of this district.

Had Mr. Amy been possessed of the larger vision, he might have caught, at least, a glimpse of our great possibilities, and prompted by a helpful heart, he might have given them in his article some of the space their importance calls for, instead of chiefly seeing "stale fish," smelling "overpowering odors," sneering at our citizens, and featuring extravagant statements. As a sample of the latter, we quote the following:—

> "Hundreds of its people have never been outside its limits—old men and women, whose ancestors ran to cover many a time, at sight of a French frigate or an American privatee. Hazel Hill is foreign travel to many of them. They are content to die without hearing the rumble of a train. Into the career of a woman of sixty has come a big event—a visit to a neighboring fishing village, five miles along the coast, in honor of the opening of a new church; and she talks about it yet," and so on.

The statement contained in the first ten words is utterly false and absolutely ridiculous. If Mr. Amy can produce one half-dozen residents of Canso of reasonable age (say 18), who have never been outside its border, to whom Hazel Hill is foreign travel, then 'Yours truly' poor and needy though he may be, will see that the former gentleman is promptly presented with a substantial cash prize. Why anyone at all conversant with local coast conditions knows that the fishermen of Canso (and of Nova Scotia generally for that matter) move around more in the earning of their daily fare, than perhaps any other large class of workers. The very nature of their occupation is responsible for this. Few are there among the Canso fishermen of all ages, who have not, at some time or other, in their career, sailed "out o' Gloucester" or Boston, or in Nova Scotia vessels, and in the course of their trips and going to and fro become acquainted with many outside places. In the round of their year's toil, many of our boat fishermen, either in lobstering, smacking, drifting, trawling, sword-fishing or otherwise, visit Cape Breton, Prince Edward Island, The Magdalenes and other points, and some are not altogether unacquainted with the West Indies. We can even name those who have been "around the Horn."



So far as the "one old lady" story is concerned, it may be quite true; yet, surely the fact of one old lady living a lifetime in narrow limits, should not be sufficient to brand a whole community as hermits any more than one swallow makes a summer, or as one raw recruit an army. You will find a few cases similar in almost any locality, even in large cities, I doubt not. The writer recalls reading, quite recently, of the death of an old lady, who, according to the news item, had been born, lived her life, and died on the same plot of land. Did it happen in Canso? Not at all. Not even in Nova Scotia, but in a large and well known town in Ontario.

As regards the distilling and smuggling stories, which are related as if they were common and typical of everyday life in this vicinity, we have an idea, that the "gentle white bearded man" who so leisurely preceded Mr. Amy to the hotel, later industriously proceeded to "pull the leg" of that worthy scribe. Some of the other old inhabitants interviewed probably had a share in the performance. There are a number of ancient mariners and longshoremen on our coast, to whom nothing gives greater delight than to meet an unusophisticated stranger, in whose company they while away some otherwise humdrum hours by pouring into his thirsty ears, tales of days gone by. It is also a safe bet that the tales lose nothing in the telling from the lapse of time. Such happenings were no doubt common enough some 60, or 40 years ago, to a lesser extent perhaps even some 30 years ago, when the narrators were younger; and form part of the picturesque past history of this historic spot, but as up to date news items they are very far astray. It is extremely doubtful whether any boozer or even moderate imbiber would care to depend for the quenching of his thirst on the quantity of strong stuff smuggled here from St. Pierre in these days.

According to the article under review, the founders of Canso "cared for nothing but the fish" and the generations since have followed strictly in their footsteps. Another extravagant statement! Had the writer said, "industrially or commercially, etc." we would have very little fault to find, (for that the fishing has ever been the foundation of our business life requires no proof) but he does not, thereby giving a false impression. Just a few facts—facts that speak for themselves—to set beside that statement. Canso at present has a public school, embracing from kindergarten to High School grades. The present building was erected a good many years ago, with a number of spare rooms for future needs, which are now being utilized. Does it look as if the citizens of that generation thought of nothing but fish? Canso has four churches with all the usual suborganizations, some of them of many years standing. Branches of the chief fraternal and social societies are in evidence here, and the women, who are forging so rapidly to the front in all countries today, are represented by various organizations such as Daughters of the Empire, etc., and since the War particularly, by the starting of a Red Cross Branch. The Sailors Rest, a reading and recreation room, free to anyone but primarily for the benefit of seafaring strangers has long been an interesting feature in our midst. Do facts such as these bear out Mr. Amy's assertion? If such things are any indication at all of an interest in spiritual, social and moral matters, and with all their imperfections they are generally accepted as such, does it look as though Canso, either past or present, could be justly accused of being so altogether forgetful of "everything but fish." While the commercial and business thoughts of the community have naturally centred around the industry, to which it chiefly owes whatever importance it enjoys, yet fishermen as well as others can sometimes spare a few thoughts for the higher things.

Entertainment or such things as cater to the lighter side of life, in Canso would seem, from our city critic's account, to be in a very primitive state, being limited to the gentle art of "moonshining" and watching the arrival of the daily boat with passengers and mail. As a matter of fact, we are by no means limited to such a primitive program. For our part, we think that a town the size of ours, containing—just to mention some without exhausting the list—a theatre comfortably seating 500 people, a curling club and rink, poolroom, shooting gallery and bowling alleys, can scarcely be said to lack modern means of recreation and entertainment.

Truth and Justice demand that we also enlighten Mr. A. and his readers, if possible, on another matter, on which he seems greatly "in the dark," namely, Canso's lighting equipment. A town-owned electric power plant supplies the light for our streets, as well as all business and public buildings. The vast majority of private dwellings in Canso proper, with an increasing number at Hazel Hill, also obtain their light from this source. Here we have another evidence of the utter unreliability of the article served up for the readers of a periodical of supposedly high-class; for the plant of which we speak was doing duty sometime previous to the publication of the writeup in question.

Our being founded upon the rock, of which much is made, has the aproval of no less an authority than the Holy Writ of Christendom, where we are distinctly told, that they who build upon the rock, display the part of wisdom. We wish to emphasize this fact, however, that, while our town does rest upon a solid foundation, one has but to go a very few yards from the wave-washed cliffs on the coast to find that foundation covreed with a good soil, a soil that, in capable hands, will grow as fine crops of grains, hay and common vegetables as man or beast can desire. Let no one be deterred,either from visiting this way by the disparaging remarks cast at our weather menu. One could scarcely expect to gauge that correctly on a flying trip. On account of situation, Canso's spring season is sometimes inclined to be windy and backward, with fog a frequent visitor, a visitor, of course, who soon wears out his welcome. With this exception, our climate is both enjoyable and invigorating. The season now passing, for instance, which in so many towns and cities has found infantile paralysis and prostrations claiming their victims in large numbers, has here been most delightful. The at-times threatening heat is always soon tempered by cool refreshing airs. Mr. Amy seemed to jump to the conclusion that wet weather was a permanent fixture here because it happened to be raining when he arrived. It will no doubt startle him to be told, that we have been without a real rain for almost three months now. So much so, that householders are becoming a little alarmed for fear that the prevailing Prohibition sentiment has seized "Old Probs" and hustled him into the "Dry" column for good and all.

Time and space are too precious to permit of my examing critically all the assertions and implications that are wide of the mark. Before passing on to glance at a few items on the credit side of our standing, I will content myself with referring to just one other strange story. Rather rich it is and calls for very little comment. It is the picture of "three little fellows scarce able to toddle launching a big dory undisturbed." It certainly speaks well for the strengthening power of Canso grub and air, and ought to be the best of advertising for a fish diet. We call it as such to the attention of the Canadian Fisheries Association and all interested in the encouragement of fish eating.

Mr. Amy sees one or two creditable things worth noting, such as "Canso's "honorable stedfast history" and the cable stations. Canso's historic importance will be readily admitted by any student of New World history. We have more than once referred to it, and will not dwell on it in this article, which is already growing too lengthy.

While the situation of our town is responsible for some minor ills of climate already touched on, yet Canso's location is probably her greatest asset. To it is no doubt almost due to the fact that this spot was chosen years ago, as a landing place for transatlantic cables, and has been for many years now one of the most important submarine cable stations in the world. In this way she has, as Mr. Amy justly says, "entered the council of the nations." Thanks to that same location, she enjoys another advantage, not yet fully appreciated. Placed almost at her very doors by the bountiful hand of Nature, lies a fertile field; a field whose surfacec has been no more than scratched as yet by the hand of industry, and awaits the plough of scientific development for its richest harvest. The same waters that lap our shores conceal a treasure far greater than the pages of fiction or local legend have buried for Capt. Kidd and his fellow buccaneers. Wealth of nourishing food for the nations larder is there; and there also, in the procuring, preparing and placing of its products. lies prosperity for the fisherman, the laborer, the man with capital to invest, and the folk in general along our shore. When the time comes, as come it must, we hope at a no distant date, that Canso can rejoice in up to date communication and transportation facilities, and her merits and resources have become better, and more widely known in that time ought to see present posibilities become accomplished facts.

Canso does not resemble a streetwalker, throwing gay inducements to every passerby (in fact, we strongly fear she does not advertise enough, for "it pays to advertise" judiciously) but to those, who make her acquaintance and stay long enough to get chummy, she reveals a generous hospitality and an unique charm, that make such an one loath to leave and eager to return. We have heard many unprejudiced persons remark that fact. If there be any very stray exception, it but goes to prove the rule. So, in conclusion, we extend an invitation to the writer, whom we have been correcting in a friendly way, to visit us again at some convenient season, to stay longer and observe more closely and correctly. Doing so, we predict that his resulting picture of Canso will be of a more accurate and therefore more pleasing nature.

TWO PROTESTS FROM NOVA SCOTIA.

Perusal of a late issue of the principal newspaper of Halifax, N.S., that is the paper with the largest circulation reveals the fact that but two ads. relating to the fishing industry are printed therein, one asking patronage for a fried fish shop, the other that of a local dealer.

Recently, this same paper had a paragraph about the prohibitive price of fish, saying in part that at the present rate fish was higher than meat, and of course not a saving item in the bill of fare of the working man. Now, everybody knows that Halifax is a seaport town, tourists throng its hotels each summer, yet no person has been enterprising enough to advertise special sea foods. No special days have been marked for the serving of fish except those due to a religious consideration. How would the various products of Canada stand in the markets, if no more effort was made to bring them before the public?

Another thing is that in the working of the fisheries the methods for the curing of fish were identical generations ago. "Nothing new under the sun", is accepted as verity by men who daily face perils such as are unbelievable by any but the "Brethern" of the sea. We hear plenty about "Scotch cure" and the better price it brings. Shall the fisherman journey to town next Winter and pay more than his season's earnings for expenses while he finds out at the technical college (which has no existence for such as he) how to do his work better, and incidentally get more in his purse? Who has been appointed by the government to educate the fisherman and help him to be thrifty as the other workers of this great country?

Margaret McLaren.

SOLDIER'S FISH RATIONS.

Canada's Innovation.

It is the proud boast of the British Army that its soldiers are the best-fed fighting men in the world, and few there are who will be found to contradict this assertion. But the British Tommy, while admiting that in the matter of variety there is still room for improvement.

In this connection he looks with envy on his Canadian cousin, who, while he is training at home and in this country, rejoices in the pleasant change of a fish ration for his breakfast twice a week, and for his lunch on Fridays. Sample lots of fish diet have also been sent to the Canadians in France, and have met with unqualified praise.

The fish comes direct from Canada's famous inland lakes, the Fraser River, and the Dominion's sea fisheries. It consists of salmon, halibut, cod, haddock, and plaice, and is shipped to England in a frozen state, and, when defrosted, reaches the soldier's table in almost as fresh a condition as when it leaves its native waters.

Each soldier has smoked haddock for the breakfast ration two days a week, and on Fridays for his lunch receives ¾-lb. of any of the above-named fish free from bone. It is estimated that during the past five months 1,750,009 lbs. of Canadian fish have been distributed amongst the Dominion's soldiers, as a saving, as against the meat ration, of about £150,000.

The War Office has been making inquiries with a view to introducing this fish into the diet of the British forces at home, and it is thought that perhaps at an early date our soldiers may be able to have the same advantage as their Canadian brothers-in-arms.

Capt. Abram Cook, in the Lunenburg schooner, "James Burton Cook," is high line of the fleet with 4,200 quintals for the season.

FISH A HEALTHY EDIBLE.

Fish of all kinds is to-day about the least costly article of food to be bought in the markets of this country. Physicians and pure food experts are agreed that there is no healthier edible, and epicures, from the royal ones of old to the expert ones of to-day, are just as agreed that, properly prepared, there is no more delicious one. — Portland Express.

THE SEA TROUT

By Professor EDWARD E. PRINCE, LL.D., D.Sc., etc.
Dominion Commissioner of Fisheries, Ottawa.

The scientific determination of the Sea Trout in Europe and on this continent, is one of the perennial problems of Ichthyology.

What is a Sea Trout? That is the question. A veteran English angler (John Bickerdyke) tells us that sea-trout fishing is salmon fishing on a small scale; and no less an authority than Francis Francis declared the sport to be "little inferior to the best grilse fishing." Many Canadian sportsmen know the fine silvery trout, of large size, which abounds on Prince Edward Island shores, especially in the month of June; but the same fish afford fine sport in the mouths of rivers from Cape Sable, along the mainland shore, north to the Bay of Chaleur and up to Gaspe. Some of our authorities have given them a specific name and the late Mr. D. C. Smith, Superintendent of N. B. Fisheries, hatched and reared sea trout under Provincial auspices; but in his scheme he declined to include speckled trout, as being an inferior game fish. In the British Islands a sea trout (**Salmo trutta**) has long been recognized as a distinct species, and not to be confused on any account with the English river-trout or brown trout (**Salmo fario**).

Moreover, naturalists on both sides of the Atlantic favoured the idea that each was a sea-run or migratory form of the fresh-water trout. Our brook trout, which is really a char (**Salvelinus fontinalis**), is held to be of larger size, brighter and more silvery, spotted with black and showing a few red dots when it resorts to salt water, and it is stronger, more gamey, and fuller of fight than the fresh-water form. The influence of changed food, migratory habits, and different environment, has effected such a transformation that the sea trout cannot be confounded with the smaller less silvery, and more variously tinted speckled trout, or brook trout, so familiar in our Ontario and Quebec lakes and streams.

No angler who has landed these fine sea trout near the mouth of the Morell or Dunk Rivers, in Prince Edward Island, or has played his silvery victims in the streams of Guysborough County, Nova Scotia, or Miramichi Bay, New Brunswick, can ever forget the brave fight they make. Inferior to the salmon himself only, they run a close second with the pugnacious, untiring black-bass. Similarly the sea trout of Britain has always been regarded as the sea-run form of **Solma fario**; but so long distinguished by differences in build, form, colour, habitat, and in a certain shade of gaminese, that his title to be called **Salmo trutta**—a distinct species, has not been generally questioned. There is, however, another sea trout, long bearing the name of bull trout, and by British zoologists called **Salmo eriox**. Possibly we have in Canada a similar fish in the **Salmo albus** or **immaculatus** of Labrador exprorers; or perhaps the "Grayling" of certain Nova Scotia rivers may be a parallel to the giant trout, the bull trout of the Tweed, the Whitadder, and other rivers in Britain.

A handsome and ponderous book by Mr. Henry Lamond entitled "The Sea Trout", a Study in Natural History," has just been published in England and has been hailed with much delight by reviewers in important journals. The London "Times" devotes a column and a quarter to a notice of it, mostly favourable; but alas! much remains to be said on the sea trout question even yet, on both sides. Science, indeed, has still to decide "What is a Sea Trout?"

Of the book itself, it must be pronounced a superb publication. The thick luxurious paper, large, clear type, wide margins, 62 figures, half-tones of fish, and photographs of scales; but above all, its magnificent coloured plates, nine in number, combine to make it a notable work. The exact scientist will not be satisfied with it for he will notice a lack of decision and thoroughness in the views expressed; but no one interested in fish can look at the brilliant and perfect pictures by Mr. Lamond of trout and salmon, at various ages, without a feeling of delight.

The original drawings for these really beautiful and life-like plates are from the skilful brush of Mr. Lamond himself. Few books upon fish have been so superbly illustrated. Coming to the views expressed, it must be admitted that the final word in the controversy has not been uttered. The "Old Angler" and others can still fill columns in the sporting journals with their opinions. Mr. Lamond reverses the usual contention that the sea trout is a transformed fresh-water trout. He would abolish the latter and declare that only one British species exists, viz. the **Salmo trutta** or Sea Trout of British waters. He has the support of Mr. Tate Regan, of the British Museum, in tending that there is only one species. **Salmo trutta**, of which the famous English brown trout is merely a variety. It will be long before authorities generally will abolish the time-honoured **Salmo fario**, the Brown trout. Of course there can be little question that the Salmonidae are originally marine fish, although Sir Herbert Maxwell, Professor Noel Paton, and Mr. Hamish Stewart affirm their fresh-water origin; and that the various genera and species have arisen by Darwinian variation. A species is really only a variety intensified, and thus established on a stable basis. In asserting that **Salmo trutta** is one species, and **Salmo fario**, another, it is not implied that they are not genetically connected, any more than that Miss Smith is not connected with the Smith family because she changed into Mrs. Brown (and has adopted the habitat, food, and mode of life of the Browns. A natural system of classification implies relationship, and involves ancestral derivation. But for scientific convenience species once firmly established must not be abolished, unless strongs grounds for doing so exist. No well-known record exists of sea trout eggs, fertilized with brook trout milt, producing young which were fertile, when

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[*] "The Sea Trout" (with 9 coloured plates and 63 figures) by Henry Lamond,, (1916 London, Sherratt and Hughes). A handsome work recently published in London.

reared to the mature age. Nor has the reverse been recorded. Stress has always been laid on the sea trout experiment of Sir James Gibson Maitland in Scotland, which is familiar to fish authorities.

Sea trout **Salmo trutta** were retained in fresh water until they produced eggs; and a specimen of the young hatched from these eggs was examined by Dr. Francis Day, when it was 6 inches long. He could not distinguish it from **Salmo fario**; but it is forgotten that the specimen must have been a hybrid for the eggs of the sea-trout hatched in February 1886 had not been fertilized by sea trout milt. The milt indeed of **S. levenensis** (regarded as a distinct species) and the milt of **Salvelinus fontinalis**, a species of a totally different genus, were used, and the fish examined by Dr. Day was a hybrid, and not the legitimate young of a sea trout **(S. trutta)** at all. On p. 37 of his work Mr. Lamond goes so far as to admit that a trout habituated to a salt-water environment differs greatly from the fresh-water form, and no one can deny it, he says. Now, sea trout do differ most markedly from fresh-water trout, and the differences are not to be set aside in the easy manner of this author and others. Mr. Lamond, we note, objects to Mr. Tate Regan's statement that, in the young stages, the two fish are indistinguishable, and his own beautiful drawings show how different they are. Our own Canadian sea trout, of larger size than the brook trout, and of a steel or blue grey hue, with silvery sides usually sparsely spotted, is deserving of further study. Long ago Dr. Storer called it "**immaculatus**", and it may yet be shown that a specific cognomen is necessary. Mr. Lamond denies to the British bull trout (**Salmo erio**) validity as a species, and even affirms that (p. 29) "the best scientific opinion does not concede the bull trout's claim to a distinct species" — which is a mistake for no less an authority than Sir Richard Owen pointed out that the skeleton of **Salmo eriox** differs from that of other trout, and showed a more massive element, his so-called humerus, in the pectoral girdle. This is a momentous difference. Mr. Tate Regan admits that in abolishing the recognized species of British trout, he is puzzled to account for the "bull trout", and he somewhat unwillingly ascribes to it a barely distinguishlabe race, though Dr. Boulanger, a high authority in the British Museum, goes so far as to deny that it is even a variety, and urges that the name **Salmo eriox** be dropped.

Mr. W. L. Calderwood, H. M. Salmon Inspector, Edinburgh, with his large Scottish experience, refuses to adopt this course; but even he regards "**eriox**" as merely a variety of **S. trutta**. None of these authorities seem to be aware of the peculiar shoulder girdle of **Salmo eriox**. Many years ago the writer, anxious to study this osteological point, in view of Professor Owen's statement, was offered specimens of the fine Whitadder bull trout by Lady Fanny Tweedmouth. The Late Lord Tweedmouth had expressed to the writer, many times, his dislike for the large bull trout, which seemed to have driven out, or kept out, the salmon from his river near Ninewalls, Berkwickshire. The two specimens, over 20 lbs. each, in weight, were very like salmon, being silvery, spotted; but coarser in build, paler in the flesh, unlike in dentition and with the rounded, not square, or lunate, trout or salmon tail. I found the specially strengthened bony element in the pectoral arch, which Professor Owen held to be peculiarly developed in the bull trout. This skeletal feature is distinctive. Now, just as the African elephant and the Asiatic elephant, differ, and cannot be regarded as one species, though the differences in size, external features and even mental temperament, etc., must be due to difference of environment, so the sea-trout can be justifiably regarded as distinct; but, connected very closely, notwithstanding, with the fresh-water type. Dr. Starr Jordan has favoured abolishing as a distinct species, amongst the American Salmonidae, the noble steel-head (**Salmo rivularis**), a large silvery, gamy Pacific Salmon, because he regards it as a sea-run variety of the Rainbow trout **(Salmo irideus)**; but the two fish are so generally recognized as distinct that it is justifiable to continue to regard the steel-head as a marine migratory form, the nearest to the true salmon, **(Salmo salar)** of our western Salmonidae, and quite unlike the false salmon, the **Oncorhynchi** of the Pacific Coast, which includes the Sockeye, the Quinnat, Coho, and other well-known commercial fish.

It is interesting to note that both Mr Lamond and Mr. Tate Regan hold that the sea trout are replenished and the supply kept up the reinforcements from the fresh-water form up river which wander down to salt water.

Mr. Regan claims that a continuous series of specimens from the fresh-water trout to the typical sea-trout can be compared and the difference bridged over, and Mr. Lamond says that "estuarine trout are often intermediate between migratory and non-migratory trout in appearence and habits", through in the eyes of most people a trout must be one thing or the other, and a trout which is neither a sea-trout nor a river-trout would be difficult to diagnose. These authorities are no doubt right in their theory that ancestrally the Salmonidae are marine fish, and that in Britain an elevation (after the ice sheet receded, which had killed out all the fresh-water fishes). the char, like our **Salvelinus** ran up into the newly-formed lakes and the migratory variety, the sea trout, descended; but those which assumed what Lamond calls "fluviatile colours" remained non-migratory as the fresh-water trout. This, no doubt, is the true story, but while the char in the British Isles do not descend to the sea, on this continent they do, hence we have sea trout, or migratory sea-char as they should be called. A more thorough study of the osteology, and other structural features, of the sea trout of the Maritime Province waters will, there is little doubt, show how distinct it is from the common speckled trout. Both differ in habits as well as in external configuration and appearance. In spite of Mr. Lammond's elegant but unsatisfactory memoir, the sea-trout, bull-trout, and river-trout of Britain, will still be regarded as distinct species. We believe that Canadian sea trout differ from our non-migratory speckled trout of the inland lakes and streams in no less marked degree.

Messrs. Leonard Bros., of Montreal and St. John, N.B., have purchased the splendid cold storage plant located at Port Hawkesbury, N.S., and formerly owned by the North Atlantic Fisheries Company, Limited. It is reported that Messrs. Leonard Bros., in conjunction with Messrs. Matthews and Scott, of Queensport, N.S., will operate as wholesale fish producers and distributors on a large scale.

HALIBUT ARRIVALS AT WEST COAST PORTS. AUGUST 1 TO AUGUST 31st INC.

AT PRINCE RUPERT, B.C.

Aug. 1.—Aurora, U.S., 10,000 Pacific Fisheries Company.

Hecate, 7,000, Pacific Fisheries Company.

Dolphin, U.S., 18,000, Booth Fisheries Company.

Rose Spit, 7,000, Booth Fisheries Company.

Mabel A., U.S., 8,000, The Canadian Fish and Cold Storage Co., Ltd.

Agnes B., U.S., 17,000, The Canadian Fish and Cold Storage Co., Ltd.

Volunteer, U.S., 30,000, The Canadian Fish and Cold Storage Co., Ltd.

Lillian S., U.S., 5,000, The Canadian Fish and Cold Storage Co., Ltd.

August 2.—Elsie, U.S., 14,000, Pacific Fisheries Company.

Dora H., U.S., 11,000, Pacific Fisheries Company.

Albatross, U.S., 30,000, Atlin Fisheries, Limited.

Elizabeth, U.S., 18,000, The Canadian Fish and Cold Storage Co., Ltd.

Mt. 3, 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Vansee, U.S., 40,000, The Canadian Fish and Cold Storage Co., Ltd.

Zibassa, 40,000, The Canadian Fish and Cold Storage Co., Ltd.

Equator, 5,000, Atlin Fisheries Limited.

Aug. 3.—Grayling, U.S., 16,00, Pacific Fisheries Company.

Sea Gull, U.S., 10,000, Pacific Fisheries Company.

Flamingo, U.S., 16,000, The Canadian Fish and Cold Storage Co., Ltd.

Atlantic, U.S., 33,000, The Canadian Fish and Cold Storage Co., Ltd.

Merrymaid, 5,000, The Canadian Fish and Cold Storage Co., Ltd.

Director, U.S., 25,000, Atlin Fisheries Limited.

P. Doreen, 25,000, Atlin Fisheries, Limited.

Pharaon, 16,000, Atlin Fisheries Limited.

Aug. 4.—Helgeland, U.S., 50,000, The Canadian Fish and Cold Storage Co., Ltd.

Jo. Baker, 11,000, San Juan Fishing and Packing Company.

Venus, U.S., 9,000, San Juan Fishing and Packing Company.

Dixi, U.S., 5,000, Pacific Fisheries Company.

Alliance, 10,000, Atlin Fisheries Limited.

Grier Starrett, 25,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 6.—Tide, 7,000, Atlin Fisheries Limited.

Tuladi, 15,000, Atlin Fisheries Limited.

Gilford, 7,000, Atlin Fisheries Limited.

Murineag, 8,000, The Canadian Fish and Cold Storage Co., Ltd.

Presho, U.S., 6,000, The Canadian Fish and Cold Storage Co., Ltd.

Holdal, U.S., 8,000, The Canadian Fish and Cold Storage Co., Ltd.

Petrel, U.S., 8,000, The Canadian Fish and Cold Storage Co., Ltd.

Margalice, 8,000, Atlin Fisheries Limited.

Nellie, U.S., 12,000, Booth Fisheries Company.

Lincoln, U.S., 12,000, Booth Fisheries Company.

Chief Skugaid, 75,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 7.—Treo, U.S., 15,000, Pacific Fisheries Company.

Geo. E. Foster, 30,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 8.—Kodiak, U.S., 40,000, Booth Fisheries Company.

Maud, 9,000, Pacific Fisheries Company.

Viking, 6,000, Pacific Fisheries Company.

Cora, U.S., 8,000, Pacific Fisheries Company.

Selma, U.S., 6,000, Pacific Fisheries Company.

Vasa, 14,000, Atlin Fisheries Limited.

Unity, 6,000, Atlin Fisheries Limited.

Alameda, U.S., 13,000, The Canadian Fish and Cold Storage Co., Ltd.

Wilson, U.S., 25,000, The Canadian Fish and Cold Storage Co., Ltd.

Liberty, U.S., 5,000, The Canadian Fish and Cold Storage Co., Ltd.

Trio, U.S., 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 9.—Aurora, U.S., 7,000, The Canadian Fish and Cold Storage Co., Ltd.

Niagara, U.S., 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Mabel, A., U.S., 24,000. The Canadian Fish and Cold Storage Co., Ltd.

San Jose, U.S., 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Tom and Al, U.S., 30,000, The Canadian Fish and Cold Storage Co., Ltd.

Pioneer, U.S., 50,000, The Canadian Fish and Cold Storage Co., Ltd.

Polaris, U.S., 50,000, The Canadian Fish and Cold Storage Co., Ltd.

Ida N, U.S., 25,000, Atlin Fisheries Limited.

Royal, 5,000, Atlin Fisheries Limited.

Aug. 10.—Dolphin, U.S., 14,000, The Canadian Fish and Cold Storage Co., Ltd.

Exhibit, U.S., 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Volunteer, U.S., 16,000, The Canadian Fish and Cold Storage Co., Ltd.

Mayflower, U.S., 8,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 11.—Lillian M., 10,000, The Canadian Fish and Cold Storage Co., Ltd.

Aurora, U.S., 14,000, Pacific Fisheries Company.

Agnes B., U.S., 13,000, Pacific Fisheries Company.

Aug. 12.—Jas. Carruthers, 65,000, The Canadian Fish and Cold Storage Co., Ltd.

Superior, U.S., 18,000, Atlin Fisheries Limited.

Aug. 13.—Glacier, U.S., 13,000, Pacific Fisheries Company.

Anna D, 5,000, Pacific Fisheries Company.

Omaney, U.S., 25,000, The Canadian Fish and Cold Storage Co., Ltd.

Dora H., U.S., 27,000, Booth Fisheries Company.

Shamrock, U.S., 27,000, Booth Fisheries Company.

Lillian, U.S., 10,000 Atlin Fisheries Limited

Zorra, 20,000, Atlin Fisheries Limited.

Aug. 14.—Tide, 5,000, Pacific Fisheries Company.

Magnolia, U.S., 20,000, Pacific Fisheries Company.

Per Gynt, U.S., 5,000, Pacific Fisheries Company.

Andrew Kelly, 40,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 15.—Stranger, U.S., 15,000, Atlin Fisheries Company.

Alliance, 5,000, Atlin Fisheries Company.

Petrel, U.S., 8,000, Atlin Fisheries Company.

Selma, U.S., 12,000, Pacific Fisheries Company.

Myrtle, U.S., 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Alten, U.S., 13,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 16.—Malola, U.S., 25,000, Atlin Fisheries Limited.

Aug. 17, Director, U.S., 12,000, Booth Fisheries Company.

Spencer, U.S., 12,000, Booth Fisheries Company.

Wilson, U.S., 25,000, Booth Fisheries Company.

Grayling, U.S., 11,000, Pacific Fisheries Company.

Alvilda, U.S., 6,000, Pacific Fisheries Company.

Flamingo, U.S., 12,000, The Canadian Fish and Cold Storage Co., Ltd.

Venus, U.S., 22,000, The Canadian Fish and Cold Storage Co., Ltd.

Elizabeth, U.S., 13,000, The Canadian Fish and Cold Storage Co., Ltd.

Rolfe, U.S., 20,000, The Canadian Fish and Cold Storage Co., Ltd.

Caygeon, 5,000, The Canadian Fish and Cold Storage Co., Ltd.

Doreen, 4,000, The Canadian Fish and Cold Storage Co., Ltd.

M. T. 3, 10,000, The Canadian Fish and Cold Storage Co., Ltd.

Unity, 9,000, Atlin Fisheries Limited.

Maud, 9,000, Atlin Fisheries Limited.

Merrymaid, 4,000, Atlin Fisheries Limited.

Aug. 18.—Gilford, 12,000, Atlin Fisheries Limited.

Lillian M., 15,000, Atlin Fisheries, Limited.

Karl F., 7,000, The Canadian Fish and Cold Storage Co., Ltd.

Nautilus, 9,000, The Canadian Fish and Cold Storage Co., Ltd.

Lister, U.S., 9,000, The Canadian Fish and Cold Storage Co., Ltd.

Jo. Baker, 10,000, The Canadian Fish and Cold Storage Co., Ltd.

Lincoln, U.S., 10,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 19.—Alaska, U.S., 75,000, The Canadian Fish and Cold Storage Co., Ltd.

Mabel, U.S., 22,000, Pacific Fisheries Company.

Siloam, U.S., 20,000, Booth Fisheries Company.

St. Léon, 6,000, Booth Fisheries Company.

Dolphin, U.S., 9,000, Atlin Fisheries Limited.

Chief Skugaid, 40,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 20.—Volunteer, U.S. 30,000, Booth Fisheries Company.

Rose Spit, 18,000, National and Independent Fisheries Company.

Ida N., U.S., 30,000, National and Independent Fisheries Company.

Pacific, U.S., 12,000, The Canadian Fish and Cold Storage Co., Ltd.

Chief Zibassa, 40,000, The Canadian Fish and Cold Storage Co., Ltd.

Bryan, U.S., 10,000, Pacific Fisheries Campany.

Mayflower, U.S., 7,000, Pacific Fisheries Company.

Nellie, U.S. 8,000, Atlin Fisheries Limited.

Vasa, 10,000, Atlin Fisheries Limited.

August 21.—Selma, U.S., 10,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 22. — Seymour, U.S., 35,000, The Canadian Fish and Cold Storage Co., Ltd.

Constitution, U.S., 30,000, The Canadian Fish and Cold Storage Co., Ltd.

Presho, U.S., 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Treo, U.S., 60,000, The Canadian Fish and Cold Storage Co., Ltd.

Uranus, U.S., 10,000, The Canadian Fish and Cold Storage Co., Ltd.

Pharaon, 5,000, The Canadian Fish and Cold Storage Co., Ltd.

Tom and Al, U.S., 25,000. Booth Fisheries Company.

Trio, U.S., 18,000, Booth Fisheries Company.

Agnes B., U.S., 14,000, Pacific Fisheries Company.

Aurora, U.S., 13,000, Pacific Fisheries Company.

Dora H., U.S., 20,000, Pacific Fisheries Company.

Royal, 6,000, Goletas Fish Company.

Corona, U.S., 50,000, Atlin Fisheries Limited.

Aug. 23. — Eidsvold, U.S., 9,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 24. — Per Gynt, U.S., 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Orient, U.S., 12,000, The Canadian Fish and Cold Storage Co., Ltd.

Lillian S., U.S., 12,000, The Canadian Fish and Cold Storage Co., Ltd.

Borealis, 50,000, Atlin Fisheries Limited.

Aug. 25.—Exhibit, U.S., 6,000, The Canadian Fish and Cold Storage Co., Ltd.

Selma, U.S., 7,000, The Canadian Fish and Cold Storage Co., Ltd.

James Carruthers, 60,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 26. — Aurora, U.S., 10,000, Booth Fisheries Company.

Aug. 27.—Alliance, 12,000, Booth Fisheries Company.

Alaska, U.S., 90,000, The Canadian Fish and Cold Storage Co., Ltd.

Shamrock, U.S., 30,000, National and Independent Fisheries Co.

Aug. 28.—Glacier, U.S., 12,000, The Canadian Fish and Cold Storage Co., Ltd.

Aug. 29.—Advance, U.S., 20,000, Booth Fisheries Company.

Alten, U.S., 30,000, Booth Fisheries Company.

Geo. E. Foster, 40,000, The Canadian Fish and Cold Storage Co., Ltd.

Superior, U.S., 15,000, Atlin Fisheries Limited.

Director, U.S., 10,000, Atlin Fisheries Limited.

Aug. 31.—Siloam, U.S., 27,000, The Canadian Fish and Cold Storage Co., Ltd.

Yakutat, U.S., 25,000, The Canadian Fish and Cold Storage Co., Ltd.

Flamingo, U.S., 13,000, The Canadian Fish and Cold Storage Co., Ltd.

Grayling, U.S., 12,000, The Canadian Fish and Cold Storage Co., Ltd.

Alvilda, U.S., 12,000, The Canadian Fish and Cold Storage Co., Ltd.

Alameda, U.S., 12,000, The Canadian Fish and Cold Storage Co., Ltd.

Annue Larsen, U.S., 15,000, The Canadian Fish and Cold Storage Co., Ltd.

Sealight, U.S., 6,000, The Canadian Fish and Cold Storage Co., Ltd.

Myrtle, U.S., 20,000, The Canadian Fish and Cold Storage Co., Ltd.

Wilson, U.S., 18,000, The Canadian Fish and Cold Storage Co., Ltd.

Panama, U.S., 30,000, The Canadian Fish and Cold Storage Co., Ltd.

Gilford, 15,000, Goletas Fish Company.

M. T. 3, 6,000, Atlin Fisheries Limited.

Note:—All vessels not specified "US" are of Canadian Regiter.

AT KETCHIKAN, ALASKA:—

Aug. 1.—Prospector, 35,000, New England Fish Company.

Aug. 3.—Argus, 6,000, New England Fish Company.

Aug. 4.—Eureka, 5,000, New England Fish Company.

Aug. 5.—Hazel, 8,000, New England Fish Company.

Kennebec, 8,000, New England Fish Company.

North Cape, 10,000, New England Fish Company.

Aug. 7.—Bryan, 10,000, New England Fish Company.

Aug. 9.—Mira, 10,000, New England Fish Company.

Sealight, 8,000, New England Fish Company.

Star, 15,000, New England Fish Company.

Elfin, 10,000, New England Fish Company.

Alma, 5,000, New England Fish Company.

Rolph, 12,000, New England Fish Company.

Aug. 14.—Roald Amunsden, 15,000, New England Fish Company.

Starr, 30,000, San Juan Fishing and Packing Company.

Aug. 16.—Northcope, 5,000, New England Fish Company.

Aug. 18.—Yukon, 5,000, New England Fish Company.

Aug. 19.—New England, 70,000, New England Fish Company.

Aug. 21.—Holdal, 6,000, New England Fish Company.

Comet, 85,000, San Juan Fishing and Packing Company.

Aug. 22.—Prospector, 50,000, New England Fish Company.

Aug. 24.—Westfjord, 20,000, New England Fish Company.

Aug. 25.—Pioneer, 28,000, San Juan Fishing and Packing Company.

Aug. 23.—Zorra, 25,000, New England Fish Company.

Aug. 26.—Vesta, 25,000, New England Fish Company.

Olympic, 25,000, New England Fish Company.

Eureka, 5,000, New England Fish Company.

Aug. 28.—Polaris, 70,000, New England Fish Company.

Rolph, 15,000, New England Fish Company.

AT VANCOUVER, B.C.:—

Aug. 1.—Jessie, 29,000, Crown Fish Co.

Aug. 7.—Celestial Empire, 60,000, The Canadian Fishing Co., Ltd.

Aug. 8.—Pescawha, 60,000, The Canadian Fishing Co., Ltd.

Aug. 9.—Manhattan, 150,000, New England Fish Company.

Flamingo, 90,000, The Canadian Fishing Company Limited.

Aug. 10.—Kingsway, 60,000, The Canadian Fishing Company Limited.

Aug. 11.—Borealis, 50,000, The Canadian Fishing Company Limited.

Emma H., 30,000, The Canadian Fishing Company Limited.

Aug. 14.—Carlotta G. Cox, 40,000, The Canadian Fishing Company Limited.

Aug. 16.—Nornen, 5,000, The Canadian Fishing Company Limited.

Aug. 18.—Jessie, 8,000 Crown Fish Company.

Aug. 24.—Celestial Empire, 70,000, The Canadian Fishing Co., Ltd.

Pescawha, 70,000, The Canadian Fishing Company Limited.

Aug. 29.—Flamingo, 50,000, The Canadian Fishing Company Limited.

Aug. 26.—Kingsway, 60,000, The Canadian Fishing Company Limited.

Aug. 28.—Manhattan, 140,000, New England Fishing Company.

Aug. 29.—Emma H., 30,000, The Canadian Fishing Company Limited.

Aug. 30.—Carlotta G. Cox, 10,000, The Canadian Fishing Company Limited.

AT STEVESTON, B.C.:—

Aug. 10.—Roman, 100,000, Columbia Cold Storage Company.

Aug. 26.—Roman, 70,000, Columbia Cold Storage Company.

THE CANADIAN FISHERIES DURING AUGUST, 1916.

(Furnished by the Naval Service Dept.)

The weather on the Atlantic Coast during the month of August was very favourable for fishing, with the exception of the Bay of Fundy where heavy fogs prevailed during a portion of the month.

Scarcity of bait and the presence of large quantities of dogfish prevented the fishermen from obtaining good catches of cod.

Hake was reported quite plentiful along the shores of Nova Scotia during the latter part of the month and a good catch was taken.

One man in Lunenberg was reported killed by lightning while fishing.

In Northumberland County the seals are reported to be very plentiful and are causing considerable loss to the fishermen.

The lobster season which closed on the 11th of the month was a very successful one. Since the opening of the season on November 15th until the close there were 188,545 cases packed and 94,409 cwts. shipped in shell. During the corresponding period in the preceding year there were 160,484 cases packed and 108,593 cwts. used fresh or shipped in shell.

In British Columbia the weather conditions generally were favourable for fishing but the catches were lighter than usual.

The salmon catch in the Southern district was not half as great as in August 1915. The fishing improved during the month in northern British Columbia.

Whaling operations have been fairly successful; one station having obtained 150 whales so far this season.

The following is the result of the fishing in Saguenay County, Que. for the month of July. — Salmon, 1,028 cwts.; landed fresh $4,565; used fresh 297 cwts.;

pickled 494 cwts.; Lobsters, 233 cwts.; landed value $1,157; canned, 115 cases; shipped in shell, 3 cwts.; cod, 51,495 cwts. landed value $54,099; used fresh, 604 cwts.; green-salted, 962 cwts.; dried 16,388 cwts.; Herring 322 cwts. landed value $358; used fresh, 11 cwts., dry salted 50 cwt., pickled 70 bbls. used as bait 8 bbls.; Halibut, 60 cwts. value $341; used fresh. Clams, 52 bbls. value $250; used fresh; Capelin, 750 bbls, value $250; used as bait. Total value of all fish landed $60,900.

The values herein shown are based on the prices of the various kinds when first brought to land by the fishermen. The figures contained in the Monthly Bulletin are subject to revision before publication in the Annual Report.

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* * *

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(PUBLISHERS OF THE CANADIAN FISHERMAN)

Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, NOVEMBER, 1916 No. 11

Photo F. W. Wallace. **A BANK FISHING DORY**

EVERY TUESDAY A FISH DAY HEREAFTER!

Look for the
Mark of
Quality

MARITIME FISH CORPORATION
CANADA CANADA CANADA CANADA
LIMITED

It can be seen
on all
High-Grade
Atlantic Sea
Foods

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PRODUCERS OF ALL KINDS
OF ATLANTIC SEA FOODS
FOR HOME & EXPORT TRADE

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Maritime Fish Corporation
LIMITED

ONTARIO
Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted—October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries
Of the Province of Quebec

Department of The Naval Service

Fisheries Branch

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $36,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on June 1st, 1916

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)				1 April to 15 June.
Maskinonge				15 April to 15 June.
Ounaniche				1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 & July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	
Pickerel				April 15 to May 15.
Salmon (netting)	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb 28	Aug. 1 to April 30.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Sept. 16 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	April 1 to June 30
Sturgeon		June 1 to July 1.		June 1 to June 30.
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to April 30
Salmon Trout				Oct. 15 to Dec 1.
Whitefish				

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)	a1 Jan to 15 June.			
Maskinonge	1 Jan. to 15 June.			
Ounaniche				
Oysters				May 1 to Aug. 31
Quahaugs				
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	
Salmon (netting)				
Salmon (angling)				
Smelts				See regulations.
Sturgeon		Oct. 16 to June 15.	Oct. 16 to June 15.	
Speckled Trout	cSept. 15 to April 30.			
Salmon Trout	gOct. 5 to Nov. 30.			
Whitefish	gOct. 5 to Nov. 30.	Sept. 15 to Nov. 19.	Sept. 15 to Dec. 15.	

a—Except in Lake Erie west of Pt. Pelee where close season is May 24 to July 15.

b—Except on leased areas, where close season is from 1 July to 31 Aug.

c—See regulations.

d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.

e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.

f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.

g—For exceptions see regulations.

i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.

For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED
TO THE COMMERCIAL FISHERIES
OF CANADA AND NEWFOUNDLAND
THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE
- - OF FISH PRODUCTS - -

F. WILLIAM WALLACE
EDITOR

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Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, NOVEMBER, 1916 No. 11

November Fish Day Calendar

1916			NOV.			1916
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Every Tuesday is a Fish Day Now!

THAT $500,000 PER WEEK FISH ORDER.

We in the fish business of Canada, irrespective of the political parties we affect, must concede the fact that Lieutenant-General Sir Sam Hughes is the best fish salesman Canada ever had.

When Major Hugh Green and the Canadian Fisheries Association urged the Minister of Militia to place fish on the rations of the soldiers in Canadian training camps and barracks, Sir Sam gave the scheme his wholehearted approval and went still further in organizing ways and means for supplying the troops overseas with Canadian fish, fresh, frozen and cured. Major Green, an experienced fish man, assured the General that it could be done, and Sir Sam backed him up; appointed him Director of Fish Supplies to the Canadian Overseas Forces; sent him to England and told him to go ahead.

Green certainly went ahead in spite of many obstacles and difficulties. The aggressive Scotch-Canadian had to break down the prejudices of camp cooks who hated to handle fish; he had to figure out questions of supply with a perishable product coming many thousands of miles from the fish producing centres in Canada to England on railroad and steamships which did not always run on schedule time, and most of all he had to combat some of the insular military conventions of British Army regulations and the keen competition of Army meat caterers. We are glad to say he succeeded and ably upheld the confidence Sir Sam Hughes placed in him. The General himself had to take a long chance when he gave his backing to the scheme and his political opponents did not hesitate to scarify him on what they characterized as "a crazy plan to force fish on the soldiers."

The success of the Canadian fish supply to the military in Great Britain opened up a new field. The British military authorities took it up during Sir Sam's last visit to England and formulated plans whereby they would supply the British troops with Canadian fish. The French and Italian Governments are also interested, and a great demand has arisen from the British public. At the present time, orders to the amount of $500,000 per week are out and tenders are being called for by the War Purchasing Commission, Ottawa. Producers in Canada have also numerous enquiries from British dealers to supply fresh-frozen, cured and canned fish in immense quantities. Altogether the orders amount to vastly more than we can supply at the present time with our limited means of production.

The demand, of course, is occasioned by the War and the scarcity of fishing vessels and fishermen in the Allied countries, but if we can supply the orders, it is a trade that will remain to some extent after the War. However, numerous difficulties have arisen here in Canada which require much deliberation and thought. In the first place, through the efforts of the Canadian Fisheries Association and Fisheries Department, we have stimulated a healthy demand in Canada for fish foods —greater than has ever been known in the history of Canada's fisheries. In the second place, a large number of Canada's professional fishermen have enlisted in the overseas forces and there is a consequent shortage in labor for production. Fishing craft of the right sort are hard to procure and builders cannot tackle any more orders for months to come. Another feature of the huge fish orders from overseas is the fact that they have come in at the wrong season. If they had been placed last spring, the Lunenburg salt fishing fleet and others could have brought in their fares in a fresh state and could have shipped them to Great Britain. During the summer, vast quantities of fish have been salted and dried for the West Indian, South American and Continental markets.

Winter is coming on now and fishing on the Great Lakes will end at Christmas thus cutting off a source of production in fresh water fish. The boat fishermen of the Pacific and Atlantic shore fisheries will have to haul up soon and the season of the Canadian salt fishing fleet is over and the schooners employed have gone into freighting—a business which is more profitable than fishing in these days of high freights. Supplies of fish in winter are irregular owing to the prevalence of rough weather on the Pacific and Atlantic Banks.

For Canada to fill these orders, a National Registration of Fisheries Production will be absolutely necessary, and above all the prices offered must be enough to induce vessel owners to equip vessels for winter fishing and fishermen to ship. If the Lunenburg fishermen could be induced to man vessels for winter fresh fishing, production could be increased considerably as these men usually stay ashore in winter. Arrangements could be made whereby the Northern Lakes could be fished more considerably than heretofore, and on the Pacific, it would seem that more vessels of the bigger class are necessary for offshore voyages. If anything is going to be done in increasing production both for home and abroad this winter, some kind of Registration Committee is necessary to take stock of our resources and means of production. Otherwise, the whole thing will amount to a Stock Market quotation—"Healthy demand but no supply."

NATIONAL FISH DAY IN MONTREAL.

The Montreal members of the Canadian Fisheries Association, including wholesalers, retailers, naval architects and representatives of the press gathered around the festive board on the evening of Tuesday, October 31st, National Fish Day. The dinner was staged at Freeman's Hotel and fish featured prominently in the menu. Here's the Bill of Fare:

Olives Celery
Oysters on the half-shell
a la Paulhus
Clam Chowder a la Grant
Boiled Cod, Sauce a la Byrne
Potatoes a la Wallace
Salmon Steaks, Brittain Style.
Irish Potatoes, O'Connor
French Peas Letourneau
Ice Cream a la Spooner
French Pastry Harpellaise
Cheese and Crackers
Demi Tasse

The dinner was excellently cooked and tastefully served and all were unanimous in the verdict that fish as the piece de resistance could very well take the place of meat. Everything went with gusto and a spirit of good-will and comradeship reigned among the party.

After drinking the health of the King, Mr. J. A. Paulhus, Chairman of the Publicity Committee of the Canadian Fisheries Association and Chairman of the Fish Day Dinner announced that the Montreal members had wired their best wishes for the success of Tuesday Fish Day to their brother members in Prince Rupert and Vancouver who were also holding dinners to celebrate the event. Prince Rupert wired back as follows:

> "We held a most successful Fish Luncheon today at the Central Hotel, Prince Rupert, commemorating Canada's Fish Day. Suitable speeches were made by Mr. T. H. Johnson of the Canadian Fish and Cold Storage Company, Ltd., on Service and Facilities. His remarks were ably supported by the Mayor of the City and by Mr. G. W. Nickerson, ex-president of the Board of Trade, who occupied the Chair. The Fisheries of the Dominion, the fishing industry of Prince Rupert and the Canadian Fisheries Association were duly remembered."
>
> G. A. WOODLAND,
> President, Prince Rupert Board of Trade.

The Vancouver fish men organized a large fund for their Publicity Campaign in aid of the Association's Tuesday Fish Day scheme and under the directorship of the Association's members in that city, extensive plans were carried out for "putting two fish days into one week."

Thousands of posters and handbills were distributed by the Association all over Canada. The Association's members in the fish trade advertised extensively in their local papers, and as far as Montreal is concerned, fish as a food was given great publicity.

The President, Mr. D. J. Byrne, was successful in organizing a Fish Day Luncheon at the Montreal Branch of the Rotary Club. The Dining Room was hung with the Association's posters and Mr. Byrne took the opportunity of preaching the gospel of fish as a food to the hundred Montreal business men who were present at the Rotary Club Fish Day luncheon. Such publicity cannot help but further the progress and development of Canada's fisheries and it is gratifying to know that every member of the Canadian Fisheries Association did his bit to help the work along on Tuesday, October 31st.

CANADIAN FISHERIES REPORT, 1915-6.

It is with great pleasure that we pick up the Forty-Ninth Annual Report of Canada's Fisheries and note that our fisheries have reached a new record in value—amounting for the statistical year of 1915-6 to $35,860,708—an increase of $4,596,077 over the year previous. The increase is largely due to the increased pack of salmon and the higher price of halibut in British Columbia—both of which amounted to $3,023,234 over last year. Nova Scotia also came ahead with an increase of $1,436,660 due to the increased catch of the Lunenburg salt banking fleet and the high prices prevailing for lobsters.

The Report outlines the Fisheries as follows:

New Brunswick, which gave an increase of over $600,000 in the previous year, shows a decrease of $202,938 in the year under review. The north shore of the province is alone responsible for the decrease where a lack of salt for curing caused a drop of $94,000 in the value of the herring catch, while mild weather during the winter caused a decrease of over $120,000 in the value of the smelt catch.

The counties of St. John and Charlotte, on the other hand, show an increase of $62,548 over the previous year, notwithstanding the fact that the previous year was one of the very best in the history of the Bay of Fundy fisheries, and it is a satisfactory feature of the increase that all branches of the industry shared in it.

Prince Edward Island records a decrease of over $300,000, which was caused by a poor smelt fishery, due to the mildness of the winter weather, and to the late opening of the lobster fishery, on the north side of the island, owing to the presence of ice on the shore.

The value of the Quebec fisheries has increased by $152,421, due chiefly to an increased catch of codfish and high prices, especially on the coast of Gaspe and in Chaleur bay. The closing of several sawmills, the increased use of motor-boats and better facilities for selling their fish caused a greater number of young men to turn their attention to fishing in the Gaspe district, with the result that all did well.

Manitoba shows a decrease of $106,497, due to the large number of fishermen who enlisted for overseas service, and the severity of the weather during the winter fishing season.

The value of the fisheries in the Yukon territory shows a slight decrease.

The fisheries of Ontario, the figures for which are supplied to this department, by the provincial game and fisheries department, show an increase of over half a million dollars. Trout, whitefish, herring and pickerel, each gave substantial increases, while both the catch and value of pike were less.

To the total value of the fisheries of Canada the sea fisheries contributed $31,241,502, and the inland fisheries $4,619,206.

The following table shows the value produced from the fisheries of each province in the respective order of rank, with the increase or decrease as compared with the year 1914-15.

Province.	Value Produced.	Increase.	Decrease.
	$	$	$
British Columbia	14,538,320	3,023,234	......
Nova Scotia..	9,166,851	1,436,660	......
New Brunswick	4,737,145	......	202,938
Ontario	3,341,182	585,891	......
Quebec.	2,076,851	152,421	......
Prince Edward Island ..	933,682	......	327,984
Manitoba	742,925	......	106,497
Saskatchewan..	165,888	33,871	......
Alberta.	94,134	7,414	......
Yukon	63,730	......	5,995
Totals	35,860,708	5,239,491	643,414
Net Increase	......	4,596,077	......

The whole report is a pleasing one considering the conditions which are prevailing. The report for 1916-7 should show a still greater increase in value owing to the demand from overseas, the increased home consumption, and the higher prices obtained for fish. Altogether, everything is looking rosy for Canada's fisheries. The demand is good and increasing daily, the fishermen will obtain good prices for their fish this winter, and if the weather is fair and the fish plentiful on the fishing grounds, the fish business will be swinging along on the crest of Prosperity's wave.

PISCATORIAL PARAGRAPHS.

At the Fish Day Dinner of the C. F. A. in Montreal, Mr. H. A. (Louie) Letourneau made a reputation as a raconteur. Friend Louie tells a story about a man who came into his store some years ago looking as if he was recovering from a convival time. The man looked all over the fish in the store and asked Mr. Letourneau to pick him out a nice fish for 15 cents—that being all he had left. "You see," vouchsafed the purchaser. "Myself and some friends took a holiday yesterday to go fishing. One was to get the grub; another the booze, and another fellow, the lines and bait. We got the grub and the booze, but forgot to bring the lines and bait, and if I got home to my wife without a fish, she'll give me hell. Pick me out a nice fish and I'll tell her I caught it and square myself." Louie listened sympathetically and picked out a large dore. Going into the back of the store, he substituted a smoked finnan haddie for the dore, and wrapping it up, gave it to the man who departed joyfully with the parcel under his arm. As Friend Louie says, "I would have given more than 15 cents to see what happened when he sprung that yarn on his wife!" So would we.

With regard to the overseas trade in fish foods, Canadian exporters would do well to remember that the North Sea — the great fishing ground of the European trawlers — has had a two year's rest and with the end of the war fish should be extremely plentiful and consequently cheap. This will effectually kill a lot of the business which Canada may be enjoying at present. Certain Canadian fish foods will hold a market in Great Britain, but there is nothing like the home market and we do not want to neglect it.

It is about time that some live Canadian producer did some experimenting with dogfish. The United States Bureau of Fisheries has already successfully demonstrated that dog-fish is marketable under the name of gray-fish. In England it is marketed as flake-fish and has been sold for as high as $1,50 to $2.00 per stone of 14 lbs. recently. Filletted, salted, smoked or canned, the dogfish ought to command a market. The fishermen would be glad to see it utilized.

Some monster mackerel fares have been landed by Gloucester seiners recently. The schooner Arthur James landed 125,000 pounds of fresh mackerel on October 19th at Boston, while the schooner Benjamin A. Smith landed 110,000 pounds. On that date some 350.000 pounds of fresh mixed mackerel were landed at the same time. The Arthur James has since been run down in a fog and sunk off Camden, Maine, by a coasting steamer.

Fishermen will receive good prices for fish this winter. There is no call for men to stay ashore with the demand for fish prevailing.

Members of the Canadian Fisheries Association can procure a sterling silver button-hole badge of the Association by forwarding 52 cents to the Secretary.

SONGS OF THE TRAWLERS.

CAP'N STORM-ALONG.

(These verses refer to the work of the British trawlers in mine-sweeping and patrol work in the North Sea).)

They are buffeting out in the bitter grey weather:
  Blow the man down, bullies, blow the man down!
"Sea-lark" singing to "Golden Feather,"
  And burly blue waters all swelling aroun'.
There's "Thunderstone" butting ahead as the wallow,
  With death in the mesh of their deep-sea trawl,
There's "Night-hawk" swooping by wild "Swallow,"
  And old Cap'n Storm-along leading 'em all.

  Bashing the seas to a welter of white,
  Look at the fleet that he leads to the fight.
  O, they're dancing like witches to open the ball;
  And old Cap'n Storm-along's lord of 'em all.

Now where have you seen such a bully old sailor?
  His eyes are as blue as the scarf at his throat;
And he rolls on the bridge of his rusty black whaler
  In yellow sou'-wester and oil-skin coat.
In trawler and drifter, in dinghy and dory,
  Wherever he signals, they leap to his call.
They batter the seas to a lather of glory,
  With old Cap'n Storm-along leading 'em all.

  You'll find he's from Devon, the sailor I mean,
  Look at his whaler now, shipping it green.
  O, Fritz and his "U-boat" must crab it and crawl.
  When old Cap'n Storm-along sails to the ball.

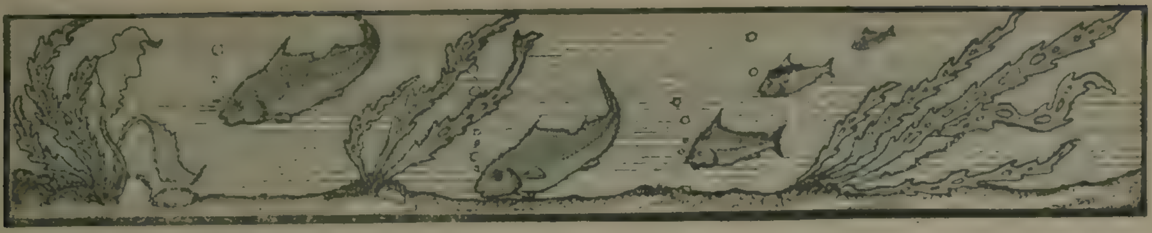
Ay, there is the skipper that knows how to scare 'em.
  Blow the man down, bullies, blow the man down!
Look at the sea-wives he keeps in his harem.
  Wicked young merry-maids, buxom and brown.
There's "Peggy," the sea-witch, and "Gipsy" so lissom,
  All dancing like ducks in the teeth of the squall,
With a bright eye for Huns, and a Hotchkiss to kiss 'em;
  For old Cap'n Storm-along's lord of 'em all.

  Look at him, battering darkness to light.
  Look at the fleet that he leads to the fight,
  O, hearts that are mighty, in ships that are small,
  Your old Cap'n Storm-along's king of us all.

—Alfred Noyes.

WARNING TO FISHERMEN.

Says The Popular Science Monthly (New York, September): "While fishing in a small Pennsylvania stream the Rev. W. P. Perry was killed almost instantly when the steel rod he was holding became entangled in high-tension transmission wires over his head. He was wading in the stream at the time and whipping the water in the usual way. With no thought of the live wires he made a cast with the line and there was a blinding flash. The current of twenty thousand volts leaped down the rod, coursed through his body, and killed him before he could make an outcry. This is said to be the first instance on record of the death of a man under such circumstances. During severe winter storms it is not infrequent to hear of electrocutions due to fallen live wires hidden in debris.



Montreal Celebrates National Fish Day

AT the national Tuesday Fish Day Dinner held in Montreal on Tuesday, October 31st, Mr. J. A. Paulhus, Chairman of the Canadian Fisheries Association's Publicity Committee, and the gentleman largely responsible for the inauguration of a Fish Day to seperate Fish from Friday, spoke to the assembled members as follows:

Gentlemen:

It is gratifying and encouraging to see how well you have responded to the call to this informal banquet. It is another proof of your devotion and goodwill to the cause we have so much at heart, and which we have so stubbornly and so energetically advocated and defended.

To-night, at the close of a Special Fish Day, the second since the inception of our Association we are here assembled in a family pact to survey the work that has been done, and to conceive and form plans for the future. I shall not dwell too long on the past. You will allow me to say, however, that this Association feels proud of what it has accomplished towards bettering the conditions of the fish interests at large. As soon as the programme of the Association was made known, as soon as the different committees were formed and the executive given control, each one of you set your minds to your new tasks and gave earnestly and with enthusiasm, your time, efforts, and knowledge for the benefit of the Association.

At first it was thought that our efforts should be spent particularly on the two last articles of our programme, namely, the distribution and the consumption of fish.

It would be unfair on my part at this meeting not to mention the active, clever, and tactful part that our president has taken in the direction of the Association. His able appeals, published in our Fisheries Magazine, were vibrant with sincerity and confidence. And clever and arduous in his sphere of action has been the chairman of our transportation committee. His was a task where patience, courage and aggressiveness were an absolute necessity.

He has tackled the intricacies and the difficulties of the transportation problems with an elan that has produced immediate and marvellous results.

AND about the talents and ability of our genial secretary-treasurer and editor of our official paper — the Canadian Fisherman — enough cannot be said. By his untiring efforts, his enthusiasm, and his magic literary powers, the cause of the consumption of fish could never have been placed in better hands, and the immense success achieved is the result of his persevering and resourceful methods. The help we have received from our magazine (which I am pleased to say is the best edited paper of the kind in America, and which is under his direction) cannot be over-estimated. Our artistic friend has another tribute of admiration from us for the way he has handled the funds trusted to his care. I remember with pleasure, that at a meeting when the question of our finances was discussed, our president pointing to our treasurer, said ''He has kept seated on our treasury chest.'' I would add in good French that he has been—le chien de garde de notre tresor.

In fact, gentlemen, we have congratulations and thanks for every one of the executive who have all been so painstaking in the fulfilment of the promises made to support our cause. While this Fish Day may not have had the great success our first one enjoyed, that was to be expected. The economic conditions of the country have changed materially. During the last two years the whole economic fabric of the Dominion has been revolutionized, and at the present moment in certain spheres of action, conditions are such that they cause uneasiness and perplexity. My intention is not to discuss at any length the cause or the effect of the present troubles, which to my mind are not at all mysterious and could be quite reasonably explained. I wish, however, to lay before you certain suggestions, and, I may say, even certain concerted actions which have been instigated and put before authorities, to the effect that the cause of the increase in price of foodstuffs was due to the cold storage system of the country. In my opinion, nothing is so perfectly erroneous, and as our trade is closely related to cold storage business, I think it not amiss to argue the question from my own point of view, and perhaps start a discussion which might be of some advantage for us in the future. Let it be understood that the cold storage institution is not intended to be a subsidiary of the St. Vincent de Paul Society. Every dollar that is placed in that business, like in any other legitimate business, is an investment which should pay interest on the capital invested. Also, like any other legitimate business, of a certain speculative nature, I may say that, year in and year out, the cold storage business has not been the Klondyke that some people think it is. I am speaking to business men, and we know that in years when produce was very plentiful and competition keen, the cold storage men have lost money. Under these circumstances I have never heard that a deputation of similar nature to the one that was in Ottawa a few days ago, ever asked the government to force any consumer in the country to put his hand in his pocket and make good the loss. But when like this year foodstuffs soar up to exceptionally high levels, some zealous people, so very much interested in the welfare of the masses, think they must find a cause, and the first thing that is most likely to appeal to the fancy of the consumers is picked out and fanned until it takes the proportion of a conflagration and leads to a disaster.

GENTLEMEN, I sincerely believe it would be a disaster for the produce trade of this country if any law should be enacted that might interfere with the free action of the cold storage business community in this country. We must not forget that the principle of the cold storage system is nothing but the prolongation of the season of a certain commodity which is produced at a certain time of the year only, and during a determined space of time. The action of the cold storage industry is simply to preserve the surplus of production when it is in its highest volume, and so present undue depreciation and thus provide a new source of food supply when the season is over.

MR. J. A. PAULHUS.

As to the present high cost of living, it would be idle to attribute it to the cold storage system, unless one is ignorant or insincere. It is due to many obvious causes, viz.: short crops, shortage of labor, unusual demand from the British Isles and the Allied Countries in the European War. In fact, we have only to turn to statistics to prove that our exports of foodstuffs have more than doubled since the beginning of the war. Another factor which also tends to the increase in the cost of foodstuffs is the depreciation of money. The buying power of the dollar has decreased in ratio to the amount of gold and silver piled up in the treasuries of this country and in the United States, and the shortage of values which it is supposed to represent.

Perhaps I have dwelt longer than it was my privilege on this question and shall revert immediately to what concerns us more closely to-night—the future of the Canadian Fisheries Association.

I regret that fish should be comparatively high this year. But fish supply, like our cereal, vegetable and fruit crops, has been a very lean one this year. In fact, official reports show that in the East, the run of herrings and other kinds of fish has been one of the smallest experienced for years. The same trouble has fallen on our lake fisheries and the Pacific Fisheries have one of the smallest yields yet known. Moreover, if we must believe what our "dailies" told us a few days ago, the Imperial Government has placed orders to buy in this market $500,000 worth of fish weekly. This will mean $26,000,000 worth of fish for the year. Considering that during last year our whole production was estimated at $35,800,000, you will see that our shortage will be such that fish food in this country will attain the highest price ever dreamed of.

GENTLEMEN, I ask you is there a remedy to the situation. I say yes. It is provided for in one of the articles of our programme. It is **Production.** If I were speaking to the public in general, I would say our motto after this should be: **Production and Economy,** but for our Association, and knowing the immense resources we have at our disposition, Production only should be the objective towards which all our efforts should tend hereafter.

We must immediately prepare a campaign to that effect in this country. On what lines, however, will be for you to decide, and for the executive committee to act upon. I have enough confidence in the resources and the ability of that body of our Association to predict that before very long they will find a solution to the problem, and be deserving once more of our congratulations, the congratulations of the fish business community and of the country.

MR. PAULHUS was followed by Mr. D. J. Byrne, President of the C. F. A., who endorsed his remarks and paid a glowing tribute to the unselfish work of the Chairman of the Publicity Committee in preaching the gospel of fish as a food. Mr. Brittain, Chairman of the Transportation Committee also came in for a large measure of praise for the manner in which he handled several matters of very great importance to the Fishing Industry of Canada. The work which Mr. Brittain did in fighting adverse railroad tariffs saved the Industry many thousands of dollars and could not be too highly appreciated. The President concluded his remarks by expressing his pleasure in being elected the Chief Executive of an Association which has, since its inception, done so much for the Fishing Industry and Fish Trade of Canada.

Mr. J. J. Harpell of the Publicity Committee outlined some of the work which the publications under his management had done for the promotion of the Fishing Industry and gave promises of much more extended work in the future. He drew attention to the fact that articles written by Mr. Paulhus had been taken up by the Advertising Manager of the Canadian Government Railways and reprinted in over a hundred newspapers and journals carrying the Government Railways advertising.

Mr. H. A. Letourneau, speaking for the jobbers and retailers, advocated the establishment of a Montreal Branch of the Association where producer, distributor and retailer could meet together and discuss local conditions. His idea was fully concurred in and a Montreal Branch will be formed in the near future.

Another side of the Fishing Industry, that of the vessels catching fish, was touched upon by Mr. Walter Lambert, M.I.N.A., a prominent Naval Architect. Mr. Lambert, for some time past, has been making a study of a new and more economical type of fishing vessel for use in the Canadian fisheries and has evolved plans and dimensions of such a craft. The design and full particlars regarding it would be published in THE CANADIAN FISHERMAN at an early date.

As an instance of the interest which was being taken in the Association by the fishermen themselves, Mr. F. W. Wallace, the Secretary, announced that he had received an application to form a branch of the C. F. A. at the head of the lakes signed by fifty lakes fishermen. The application would be placed before the next executive meeting and the branch inaugurated. Mr. Wallace strongly advocated the marketing of unutilized fish and cited the work of the United States Bureau of Fisheries in popularizing tile fish and dog fish as edible foods. He thought that skate, monkfish, r[illegible] cod, dogfish and many other varieties could be marketed profitably thus securing adequate supplies of cheap fish and benefiting the fishermen who, at the present time, had to throw such varieties away.

After addresses by Mr. A. H. Brittain, Mr. H. G. Connor, Mr. A. Charbonneau, Mr. W. R. Spooner, and Mr. Bellivance, the meeting adjourned convinced that such gatherings were worth while and of the greatest importance to the Industry.

AN IMPORTANT CHANGE IN THE CANADIAN FISHERIES.

The large cold storage and fish handling plant, which was erected at Port Hawkesbury, N. S., opposite Mulgrave, in the Strait of Canso, by the North Atlantic Fisheries, has recently been purchased by the firm of Leonard Bros. and will be operated as a general cold storage and fish curing establishment by them.

The firm of Leonard Bros. has been long connected with the Canadian fish trade, their predecessors being the firm of George Leonard & Co., who were engaged in ship building and general fish handling on Deer Island, N. B., near the famous Grand Manan Island, in Passamaquoddy Bay, where the senior Member of the present firm, Mr. Walter F. Leonard, was born and received his early training. The existing firm had its inception at St. John, N. B., more than 40 years ago, when the late Mr. C. H. Leonard operated a fish packing and curing establishment on the famed Market Wharf in that City.

In 1879 Mr. W. F. Leonard opened the present business in Montreal and in 1893 the two branches were consolidated under the firm name of Leonard Bros. In 1898 a branch was also opened at Grand River, on the Gaspe Coast in the famous Bay des Chaleurs and later other branches and fishing stations were established at various producing points.

Mr. D. J. Byrne, President of the Canadian Fisheries Association, joined the firm as a boy in 1886 and has been, through successive stages, holding various positions in their employ until 1893 when he became Manager of the Montreal Branch. In 1900 Mr. Byrne was admitted to partnership and under his control the firm acquired the present large premises in the commercial Metropolis, which include the most modern fish handling plant in Eastern Canada, equipped with cold storage and all the necessary requirements for the prompt and careful handling of fresh, smoked, dried and prepared fish.

Leonard Bros. were the pioneers in the Canadian boneless fish trade; as far back as 1881 they were curing and packing boneless fish in bricks and small boxes, which were shipped throughout Candaa, as far as Manitoba and then the North West Territories, which were little known and but sparsely populated, so that their brand has become a household word throughout the Dominion.

The firm also exports dry codfish to the West Indies and Brazil, while at their Maritime Headquarters, which occupy an important site in the City of St. John, N. B., modern smoke houses have been erected for curing haddies, fillets, kippers and bloaters. These premises extend to their own wharf, where vessels land their fares and have facilities for quick and expeditious handling of fresh fish.

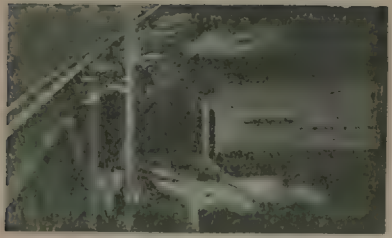
It is the intention of Messrs. Leonard Bros. to secure incorporation and extend their business in the Maritime Provinces, so that, in addition to the new cold storage, which is the acme of perfection as a fish handling and shipping plant, they will be in a better position to take care of their large and increasing trade, throughout Canada. They will cater to the Canadian trade in all kinds of prepared and smoked fish, as well as fresh and frozen stock, but the facilities will be ample to also provide for export trade, which has increased in recent years to enormous proportions for Canadian fish products.

A SWISS USE FOR SNOW.

The organ of the Swiss hotel-keepers reports a tendency to substitute artificial snow for ice for the preservation of fish. "It does not spoil fish," the writer says, "as ice sometimes does, by scratching and tearing the flesh. Artificial snow is easily obtained by slightly compressing fragments of ice at the very moment when they are detached from the blocks. A kind of plane driven by electricity is pushed along the surface of the ice, from which it cuts long shavings; these shavings are immediately snatched up by two compressing wheels, turning in opposite directions, and which transform them into real snowflakes. The snowflakes are immediately soldered and compressed. This artificial snow has already given remarkable results not only for the conservation and transportation of fish, but also for perishable produce in general."

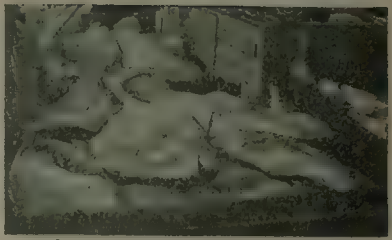
MEN SHIP NOW TO GO DOGFISHING.

Dogfishing has become an established business in Gloucester and there is much interest on the outcome of the venture. The schr. Grace Otis, one of the Gorton-Pew Vessels Company's fleet, sailed to catch only dogfish for the Gorton-Pew Fisheries Company. The prevalence of the heretofore much despised fish on some fishing grounds will, it is believed, make it easy for the craft to get a full cargo.



Frozen Fish Export

Soldiers' Ration Heralds a New Trade.



In a special interview with Major Hugh A. Green, Director of Fish Supplies, Canadian Army Service Corps, England, the British "Cold Storage," says:

"One of the effects of the War, it is hoped, will be a considerable advancement in a trade which has hitherto had little development, namely, the export of frozen fish from Canada.

Readers of Cold Storage have several months since had placed before them the possibilities of this latent food resource within our Empire, the occasion of fish shortage consequent upon the War being the excuse, if any were needed, for our laying this topic before the fish trade. It was in February last that the Cold Storage and Ice Association heard a paper on the subject of the application of refrigeration to the marketing and distribution of fish in Great Britain by Mr. J. M. Tabor, and almost immediately after that timely broaching of a subject not altogether new, the publicity of this important topic was extended to the British public by the announcement that the Canadian forces in camp and elsewhere in this country were to be supplied with a weekly ration of Canadian frozen fish. The full importance of this step may not at once appear to the on-looker, and we ourselves have gained some fuller idea of what this progress may mean to an Empire trade on meeting the one who is charged with the important duty of organizing this military supply at the present moment. Credit for putting on this new ration in the Canadian soldiers' dietary must certainly be accorded to General Sir Sam Hughes, K.C.B., the Canadian Minister of Militia, who himself is a great fish eater, and has been recognized by the Canadian Fisheries Association to the extent of making him a life member for his good work.

Major Hugh A. Green, who has come to this country for the above purpose, is one fully equipped for proving the possibilities of this new food export from the Dominion of Canada, and it was to gain some particulars of what has been done in this direction that a representative of Cold Storage called upon Major Green in London since the last issue of this journal.

From Saskatoon to Ottawa.

WE had heard that Major Green has been dubbed Canada's "Fishmonger General" and our representative found this enthusiast in no measure ashamed of this title. Versed in all the technicalities of fish supply, Major Green to-day by his powers of organization, backed by personal enthusiasm, is proving for Canada and for possibly frozen fish exporting countries all over the world, what combined effort and the money had not achieved up to two years ago. We had read in the Canadian press some time since of a young man, who came down from Saskatoon, 2,300 miles, to Ottawa, with a big fish wrapped in brown paper under his arm. Scoffed at by not a few reactionaries, that young man won his point, and induced the Canadian Government to feed its soldiers at home on an illimitable supply of fish that lay in Canadian waters, an untapped source of wealth.

That man was Mr. H. A. Green, and soon one heard of him engaged to look after the contracts for Government fish supply. That, however, was not all. He had his mission abroad, and steeped in the conviction of the benefits of fish diet and the possibilities of Canada's fish supply, he must carry that mission to Canadian troops overseas. Here, again, Mr. Green won his point, and we find him next serving his country as Major Green in the important task of organizing the supplies to the Canadian camps, hospitals, etc., in Great Britain.

Major Green, in answer to a question by our representative, stated that since March last about 1¾ million lbs. of Canadian frozen fish has thus been distributed to the Canadian forces, and he thought that it said much for this fish as a marketable commodity that not a pound of it had been wasted. The fish was supplied on the basis of a ¾ lb. ration—"three quarters of a pound, mark you," said Mr. Green, "all cleaned and dressed fish, with practically no weight of bone, and ,of course, no fat or other waste, as in the case of meat." Such a ration, rich in protein, was found to be sufficient for any man, and for the Government it was cheap food.

Varieties of Fish.

THE kinds of fish supplied in this way were, said Major Green, the following: Halibut, salmon, fine and large witch soles, cod, jumbo haddocks. Western Lake white fish and Western Lake herring, as well as smoked haddies. This made a fine range of diet, and we believe Major Green's private opinion is that there would be something like a mutiny in the forces if the fish ration were to be taken off now. There are fresh fields to conquer yet, however, and some Brigadier Generals out in France are tasting the fish, which may find its way into the trenches yet, where it will be handy and well appreciated article of diet. For instance, the Maritime Fish Corporation, Ltd., of Montreal, Canada, has a particularly delicate article in tinned chicken haddie, a food that can be eaten cold or hot, and is ready at a moment's notice, and this will be served to the Canadian troops in the trenches this winter.

Lake White Fish.

The Lake white fish, or planked white fish, as it is known in America, is a delicacy which the Yankees have already learned to appreciate well, and most of this choice Canadian fish is sold across the border to figure in the American restaurant menus at a dollar per portion, against halibut or salmon at 50 cents per portion. When the people of this country really realize what this choice fish is like, there should be a big market for it here.

Method of Shipment.

THE means by which distribution is now made of this fish is on fairly regular lines, boats generally arriving every week or ten days in Liverpool. A vessel coming to port on, say, Friday will have its frozen cargo held in its freezing chambers until Monday, and on the basis of the telegraphic applications for quantities of fish arriving in Major Green's London office from the various camps, etc., despatch is made to those quarters direct from Liverpool, the balance of the cargo being put into cold storage in port for the time being. The fish is carried by the railways on free O.H.M.S. warrants, this item of expenditure, a Government one, coming up for adjustment later.

Testimony from the soldiers' camps is, we believe, to the effect that on the ¾-lb. ration basis, all of it pure fish, there is generally enough and to spare for a fish cake item in the following morning's menu.

The freshness with which the Lake fish comes to market was aptly illustrated to our representative by Major Green by a relation of the way in which it is caught. Netted in the winter months through holes in the ice in the Western lakes of Canada, said Major Green, the fish on coming out of the water into the cold atmosphere wriggle a trifle and then go stiff in a few minutes, frozen alive on the very spot. Thence they go in the same condition by special car and away for export. Some few cases of lake pike sent over as a sample from these lakes were found on arriving on this side at the camp to have the pristine slime on the fish still intact, and they had a freshness of eye that is not found on fish, say, caught four or five days before in Irish lakes.

The British Army Next.

It is good news that the British Army itself is adopting a fish ration, this having been instituted within the last week or two, we believe at Aldershot, and one or two other places. News of the complete success of the Canadian venture cannot fail, we should think, to make a frozen fish ration eventually universal in the British Army. Its economy and healthful quality are paramount.

Major Green is, first and last, a fish enthusiast, and he has great ideas for the further extension of this great Empire export. Why not, he says, keep money within the Empire on a fish ration cheaper than meat, and meat which is putting money in the pockets of foreigners to a very large extent.

The Canadian Government has been spending 300,000 dollars a year in promoting the fish industry, and in trying to educate the public to a fish diet. Major Green believes that 100,000 dollars of this annual sum expended in Great Britain in the direction of exclusive quarters would set the trade on a firm basis. This appeal to the public would help the fish trade here in a campaign which the trade itself can hardly carry through.

Major Green's life-long connexion and association with the fish trade gives him, of course, full appreciation of the value of trade avenues, and with these he has been invariably in sympathetic touch. First and last, however, his aim is to get Canadian frozen fish export on to an extensive working basis, and this he thinks will be the outcome of present developments.

Nobody will know until after the War what a boon the fish ration has been in the Canadian Army.

Major Green had large cards printed for the cookhouses at the various Canadian camps in England, giving them instructions as to how the fish had to be prepared for cooking, and when these hints are followed the fish when properly cooked is equal to anything fresh from the sea. These instructions should be taken up and printed by everybody who is interested in the frozen fish trade, as it is only by educating the people in this way regarding the handling of the frozen fish that the public will become interested and start taking up what will be one of the trades of the future. The instructions were as follows:

MAJOR HUGH A. GREEN.

How to Prepare Frozen Fish for Cooking.

KEEP the fish frozen till ready for use.

Then put it in **cold** water long enough, but no longer than is necessary to take **all** frost out.

It will then be ready to cook.

Do not thaw out fish in **warm** or **hot** water.

Do not thaw fish out in an **oven** or by **artificial heat**.

Do not thaw fish out **until ready to cook it.**

If the foregoing directions are followed **fresh frozen** fish which is always caught alive and frozen immediately will be found when thawed out to be as firm and fresh, and of as fine flavour, as the day it was caught.

Fifty tons a week, on an average, have been arriving for the soldiers, and the weekly allowance to them includes a smoked fish breakfast portion twice a week, instead of bacon, as well as the dinner ration on Friday.

FRESH FISH BY BRITISH PARCEL POST.

(Consul Charles M. Hathaway, jr., Hull, England, Aug. 11. U. S. Trade and Commerce Report).

AN expeditious, satisfactory, and economical method of getting fresh fish from the various fishing ports directly into the hands of consumers all over the British Isles is in existence. Its main centre is Grimsby, where a group of fish merchants devote themselves to this special business, dispatching daily hundreds or even thousands of parcels, the majority of which are less than 6 pounds in weight when fully packed for shipments. These packages go forward either by passenger train under a special low rate for small parcels granted by the railway companies (this service being analogous to that of express companies in the United States) or by parcel post. It is understood that more fish is sent by the railway service than by mail, although both means are extensively used.

Parcel-Post and Railway Rates.

Fish goes by parcel post on the same terms as any other goods. The rates for all parcels are: Not exceeding 1 pound, 8 cents; between 1 and 2 pounds, 10 cents; between 2 and 3 pounds, 12 cents; between 3 and 5 pounds, 14 cents; between 5 and 7 pounds, 16 cents; and 2 cents per pound for every additional pound up to 11 pounds, whichis the maximum weight of any parcel sent by post. These rates, of course, are for any distance in Great Britain and Ireland and include delivery to residence.

Railway parcel rates are based on distances, all goods being transported at owner's risk. Rates up to 11 pounds are quoted for comparison with post-office rates: For packages not exceeding 2 pounds, 8 cents to any distance; not exceeding 3 pounds, 10 cents to any distance; not exceeding 7 pounds, 12 cents to any distance; not exceeding 9 pounds, 12 cents up to 100 miles, 14 cents up to 200 miles, 16 cents above 200 miles; not over 10 pounds, 12 cents up to 100 miles, 16 cents up to 200 miles, 18 cents beyond 200 miles; not over 11 pounds, 12 cents up to 100 miles, 18 cents up to 200 miles, 20 cents above 200 miles. The railway rate includes delivery wherever the railway has delivery service, which means all the larger towns in England. For this special parcel service the railways issue stamps like postage stamps, and these are affixed to the parcels to prepay the freight exactly as postage stamps are used by the post office.

Advantages of Two Systems Compared.

It will be observed that the railway rate is lower than the post-office rate. For instance, a 4-pound parcel by mail would cost 14 cents, by railway 12 cents to any distance. An 8-pound parcel would cost 18 cents by mail, by railway it would cost 12 cents for not over 100 miles, 14 cents for not over 200 miles, and 16 cents for greater distances. An 11-pound parcel would cost 24 cents by mail, by railway service it would cost 12 cents for not over 100 miles, 18 cents for not over 200 miles, and 20 cents for over 200 miles.

Railway delivery service is esteemed more rapid than that of the post-office, but the post-office delivery service extends to all parts of the country, while the railway delivers only in the larger towns and cities. Parcels for small towns and country districts, therefore, generally go by parcel post, unless the consignee lives so near a railway station that he can conveniently go after his consignment. Further, as the fish parcels are handled by the post-office in the same service with other parcels, the fish must be so packed that the parcel remains dry. This excludes the possibility of icing, and in the warmer weather makes it desirable to forward by parcel post nothing except very fresh fish sent out in the afternoon for delivery early next morning.

Methods of Packing Employed.

FROM November to March no ice is required for these shipments, and, in fact, the average temperature in the United Kingdom even in the summer rarely rises to such a point as to make ice absolutely necessary to carry perfectly fresh fish through a one-night journey.

The fish are wrapped in paper and then put in a woven straw bag called a bass, which is fastened up. This is all the packing. Before the war fish was wrapped in a special paper sometimes referred to as "vegetable parchment," sometimes as "solling paper." This is not now obtainable, probably because manufactured on the Continent. If ice is needed it is put in the bass with the fish. Then, of course, the parcel has to go by rail as the post office will tolerate no leakage.

Packages exceeding 11 pounds go by rail at corresponding rates, and are often conveniently put in boxes with as much ice as is desired. Special fish rates per hundredweight of 112 pounds are given from Grimsby, Hull, and other fishing ports to towns of size. These may be utilized for parcels of less than a hundredweight whenever they figure out less than the regular parcel rate. These are, however, from station to station and do not include delivery.

The Direct-to-Consumer Trade.

The small-parcel shipment direct to consumers is not a Hull trade but is made much of in Grimsby. Shipments from Hull are almost always made in boxes of considerable size to the trade. The reason for this appears to be that the Hull fishing fleet generally is engaged in long-distance fishing, and the fish landed here are, consequently, not so fresh as those received at Grimsby nor in such good condition.

A leading Grimsby house in the small-parcel-direct-to-consumer trade states that the average weight of its parcels is 5 to 6 pounds. Consumers who want a small parcel of fish send, say, 60 or 75 cents to one of the houses engaged in the business, requesting that a parcel be sent them. The merchant makes up a parcel accordingly and despatches it by rail or post as may suit the case. Of course, these fish merchants have many regular customers with whom they carry accounts, but the proper course for a stranger would be to send them some small sum with some indication of the kind of fish required.

Only the freshest fish are selected for this sort of shipment. The fish landed at Scarborough is esteemed the freshest in the United Kingdom and brings the highest average price per ton, but the supply is largely taken by high-class hotels, so that the small-shipment business has not been able to get a foothold there.

Introducting the Service Elsewhere.

The applicability of this method of distribution elsewhere would depend on (1) the freshness of the fish available for shipment (i. e., how long after catching they are landed), (2) on the temperature to be undergone, and (3) on the transportation rates. There would appear to be no inherent difficulty in making such shipments by parcel post in the northern part of the United States for considerable distances except in hot weather. For the hot weather an express service outside the ordinary postal service would have to be provided—one admitting ice in the parcels and permitting leakage.

There are being forwarded samples of the basses used for small parcel shipments (basses of larger sizes are also made), and samples of the "grease-proof" paper at present used to wrap the fish before putting it in the basses, and of the "vegetable parchment" formerly employed for this purpose, but not now procurable.

THE PEARL FISHERIES OF THE LABRADOR COAST.

THE deep-sea fishermen and whale and seal hunters are about the only people who know much of the Northern Labrador Coast where it runs up into Hudson Bay Territory.

Barrenness and desolation, with rocky coasts beaten by the icy Atlantic, long winters, and short, terribly inclement summers, are its main characteristics. There are but few signs of human life, merely rock-built shelters set up by storm-stressed mariners in the old days, when Nantucket and Gloucester whalers sought the Greenland whales amongst the icebergs there, or rude seal hunters' shanties, where observation parties land for a day or two at times.

But curious as it appears, there is a little known source of wealth in that lone land in the rivers which generally make their last leap into the ocean over a steep and high waterfall. The attention of those who take advantage of it was first drawn to the immense masses of large fresh water mussels, which in many places actually choke streams by filling their beds. These men wondered why the old-time whale or seal fishers, or some other early navigators, had collected such large quantities of the shells, as were to be seen piled about their camping places.

A short search by a well-read ne'er-do-weel a few years ago revealed a large, irregularly shaped pearl under a pile of old shells, and immediately the valuable secret was revealed. Since that time a certain number of men have become expert pearl fishers, and now shipments are regularly made of these lovely accretions. Some of the pearls are large and of great value, one having been sold in Montreal to a New York magnate of rare experience in the purchasing of valuable jewels, for upwards of a thousand dollars.

In appearance these fresh water pearls are not easily distinguished from those obtained in southern seas, though, unfortunately, a certain percentage of them are irregular in shape.

Usually they are silver white in colour, though a young man who has just returned from Labrador has a pair of pink pearls, perfectly matched, which weigh about 12 grains each, and are worth probably $60 to $70 apiece. Strangely enough, this fortunate one was not a pearl hunter, but took a clump of shells in his hand, and sat down to open them with his pocket knife. He found the two pearls in one large shell. After that he spent a fortnight in searching for more, but only secured about half a dozen small ones, worth perhaps five dollars the lot.

As a rule, however, the pearl hunting is gone about in a more scientific manner. The mussels are regularly stacked on flat rocks, or sand banks, and are allowed to decompose, when the shells open naturally and are easily examined. It appears that the Indians of that district have always known of the fresh water pearls, and that some of the rivers running north have been regularly and successfully hunted for them for many generations.

Most of the pearls collected by them in olden times were, however, ruined by being bored so that they might be strung for necklaces, or for the adornment of wampum belts. Nowadays the wide-awake Hudson Bay traders pay a fair price for all the Indians can collect.

Some of the Montreal houses have regular dealings with the pearl hunters of the coast, and have agents on the spot who secure shipments for them.

So far not much use has been made of the lovely iridescent shells, which were of old times held in great estimation by the aborigines.

Those who have ever seen the quaint old carvings of mother-of-pearl possessed by some of the Indian belles will not, however, be surprised to learn that it is now proposed to ship quantities of the largest, heaviest shells to those parts of the East, Bethlehem in Palestine, for instance, where the art of carving by hand is practised, and where labour is cheap enough to make the business remunerative.

HIGH LINE TRIPS BY BRITISH TRAWLERS.

ABERDEEN, which holds pride of place in the trawling industry in Scotland, and also over many ports in England, has had a phenomenal period of success in the fishing. Despite the fact that it has now but a small fleet, compared with pre-war days, when the daily arrivals were always in the three figures, the boats registered some record shots

The ball was opened in the last days of April with the "St. Laurence" (£1,000), "Maggie Ross" (£1,600), "George Milburn" (£2,400), "General Gordon" (£2,000). Then on May 8th the "George Milburn" came in with £1,300, and on the same day the "City of London" landed a catch value £1,077. On the 9th the "Maggie Ross" had £1,170, while on the 10th four boats — "Braeriarch," "St. Bernard," "Ocean Prince" and "Pembroke Castle" — had catches each valued at £1,000. The "St. Lawrence" on the 15th landed £1,350; the "General Gordon" £1,360 on the 16th; and the "Envoy", on the 18th, £1,000. The "Deeside", the "Oceanic", the "Forth", the "City of Aberdeen", and the "Aries", on the 22nd, had each £900 for their catch, and on the 24th the "George Milburn" made her third appearance with a £1,000 shot.

The "George Milburn" for her three trips, completed in some forty days, made £4,700 ($22,795), out of which her captain receives £461 13s. 7d ($2,236) and his mate £377 13s. 3½d ($1,829). This, however, after amply providing for all expenses connected with the boat, leaves a net profit of over £3,000 ($14,550) for the owner! Numbers of trawlers running shorter trips, such as seven to nine days, are netting anything from £500 to £800 ($2,400 to $3,800), and earning equally handsome profits. And we ask, "Why is fish dear?"

Co-operation in the Fishing Industry

By N. S. CORNELL,
President, Producers' Fish Company, Port Stanley,
Ontario.

(Conservation Commission Report 1916.)

In 1912, as commercial fishermen, we formed what is known as The Producers' Fish Co., the first association of fishermen that ever successfully tried to break the Booth combination. Perhaps as you are not commercial fishermen, you do not appreciate what that is. The Booth Co., as buyers of fish, control the markets of America. There are just two markets for fish, outside of local markets, Booth's and the commission trade in New York. The Producers' Fish Co. was capitalized at $20,000 and each of twelve tugs took one share at $100. With that $1,200 we have become successfully established—of course it was applied in a judicious manner. We bound ourselves, under a penalty clause, that any one breaking away from our company would pay a forfeit of $500. But for the forfeit clause we could not have held our members together. Two of our men broke loose and had to be restrained by injunction—and to-day there are no more thankful men in the world than they.

Conditions Before Organization.

IN 1912, when we would have an ordinary catch of two or three tons of fish to a boat, representatives of different firms would bid for them, and we would get three, four and five cents a pound for our fish. When the big run came on, when the catch came up to eight or ten tons to a boat, for, as in the halibut industry, we get more fish at some times than at others, these men would sit back and the combine's agent would come. He would say: "Well, boys, we do not know what we are going to do for you; they are catching any quantity of fish on the other shore, and we do not want your fish at all." Then he would let the matter stand in that way. Fish are perishable. Most of the men engaged in fishing are not business men. They saw the loss of those fish staring them in the face. The agent would select the weakest man, and say to him: "Captain, we can take your fish." Then this man would say: "What will you give me?" The agent would say: "One and one-half cents a pound, but do not tell that to the rest of the boys." Imagine catching fish for $30 a ton! That was the price that some of our men got before we formed our company. The first year we operated, 1912, our prices during the big run were three cents a pound. We just doubled the price that year, and in 1914 and 1915, it has been five cents a pound. On the other hand the commission markets of New York can only consume a certain quantity of fish; and, frequently, 200 boxes of fish will bring more on the New York market than 1,000 boxes at other times. It would pay fishermen better to bury 800 boxes and ship 200. However, by co-operation we do not have to do that. We know the quantity of fish the New York market is capable of handling and only send that quantity; just sufficient to keep them hungry. The other 800 boxes we divert to different markets, or, if there is no market, we put them in freezers for future sales.

No Increase in Prices.

DO not think that this is a combination whereby the price of fish is increased to the consumer. At the very time when we had to sell those fish at from one cent to one and one-half cents a pound, the price you paid was exactly the same as when we were getting five cents a pound. We were simply "held up" by these people, but we have now fought the matter through. That is just one of the benefits of co-operation in the fishing industry.

Fertilizer Plant Operated.

WHEN we were working in the ordinary way, the Government compelled us to haul away and bury any offal or unmarketable fish we brought ashore, such as eel pouts, etc. You know it is easier to throw anything of that kind overboard than to bring it ashore and draw it away. There was never any inspector there. Of course it was to our interest that the bottom of the lake should be kept clean, but we could never impress this on all of the fishermen. Just as some of the previous speakers have said in reference to fire protection, it is essential that you should bring a thing of this kind down to an individual basis. We conceived the idea of starting a fertilizer plant, and we have now one of the most successful fertilizer plants in Canada. I think, perhaps, the only one that is operated for offal fish in America. It has been very successful. It has paid about 15 per cent., and keeps the bottom of the lake on our fishing grounds clean — and that was the object in the first place.

Co-operative Action Secures Consideration.

ANOTHER benefit of co-operation is in connection with the propagation of the fish. We, as commercial fishermen, were never consulted by the Government. They got their inspiration largely from the Anglers' Assoication. But when our organization became of such importance that we represented twenty tugs, each one employing ten men, a total of two hundred men—well, there were two hundred votes. Perhaps I should not talk this way, but I cannot express myself in any other, and I do not mean more in reference to one political party than another. Now when we go to the Government for anything we say: "We represent The Producers' Fish Co., and they will sit up and look at us and say: "That is all right, what do you want?" Before, when we would make a statement, they would listen, but would say, in effect, "That is for our personal interest and we think we know more about your business than you do yourself."

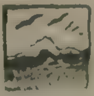
Propagation and Protection of Fisheries.

You have heard people talking about close seasons. These are all right in some places, but, in international waters they are useless. You will be surprised at what I am going to tell you, but I am going to prove it. I assert that a lake properly fished will produce 50 per cent more fish than if it is not fished at all. I have been a lumberman and a farmer, I am now a fisherman, and, when I want to illustrate my point, I use one or other of those callings. Suppose you had 100 acres of land, and you wanted to raise all the cattle that it was possible to produce on that 100 acres. Would you keep the bullocks until they were fourteen years old, or would it not be good business, whenever one of those bullocks was mature, to turn him off? Will that not apply to fish? The lake will produce a certain amount of fish food, just as the 100 acres of land will produce a certain amount of beef food. Is it not an economic fact that, when fish are mature, they had better be taken away and the rest of the food left for the young fish, just as it would be left on the farm for the calves and growing stock? That principle applies doubly to fish, because there is a class of fish we call "pirates." They not only eat the food of the smaller fish but they eat the smaller fish as well. Now the proper and the rational way to deal with these things is to apply common sense. The common sense method would be for the Government to regulate the size of the mesh, especially in gill-net fishing. It could not be done so readily in pound-net fishing. In this way nothing but mature fish would be taken. Then how will you deplete your lake?

Increase Number of Hatcheries.

THEN we should use artificial hatcheries. We have in Lake Erie the greatest cisco herring fishery, perhaps, in the world. We take more fish out of Lake Erie than out of the other great fresh water lakes together, Michigan, Huron, Ontario and Superior. In 1914, we had in one day from nineteen boats a lift of 243 tons of herring. Of the cisco herring we have almost a monopoly. Another herring we get is called the Jumbo herring; some of these weigh up to six pounds. They are a cross between the whitefish and the herring—notwithstanding Prof. Prince to the contrary. He tells us that is impossible, but we have done it—we have made the cross. We have put the spawn and the milt in the same jar and have watched the fish hatch, both in Sandwich and under Jerry Driscoll, in Erie, Pa. We know we produce that kind of fish, and in that way. Prof. Prince states that no spawn from whitefish hatch other than those which are deposited in honeycomb rock; also, that one per cent is a fair estimate of the amount of spawn hatched under natural conditions. Under artificial hatching, we produce, in the Erie hatchery, 96 per cent, and in the Sandwich hatchery 84 per cent. Would it not be better for the Government to expend on hatcheries a little of the money which we pay them, so that nearly all of the spawn can be handled, and thereby keep that lake full of fish; then, use common sense in the size of mesh allowed the fishermen, rather than restrict by close seasons, which amount to nothing?

Spawning Season Varies in Lakes.



THE time of spawning is not always the same—it differs in different lakes and localities. The dates that the fish come on the spawning ground demonstrate that. In order to make a successful restriction it would be necessary to have different laws for different lakes, and, even then, it would amount to but very little, as the difference between the natural hatch of one per cent and even the 86 per cent at the Sandwich hatchery is so great. We have furnished the department with every facility for gathering eggs. We once asked them to take the restriction off catching whitefish. At that time, the fishermen of the counties of Elgin and Norfolk were prohibited from catching whitefish during November, while those in the counties of Kent and Haldimand were allowed to fish. We were sandwiched in between and forbidden to fish, so we asked the Minister to remove this injustice. We were advised that there was an understanding between the United States and Canada under which there could be no change until a uniform basis was decided upon. The injustice complained of was not removed that year, as it was expected the Commission having the matter in hand would arrive at an early decision. However, the next year it was just the same.

We interviewed the Government about opening more hatcheries, and were told: "What is the use of more hatcheries, when we cannot get sufficient spawn for the hatchery we already have." They said that the chief source of supply was from the bay of Quinte. We said "Let us catch the spawn for you." So the Government sent three or four men out on our tugs, and, in four days from the time these men set to work, we had a telegram from Sandwich: "Send no more spawn; everything is full." By this means we got the closed season on whitefish removed in the counties of Elgin and Norfolk. This year, we undertook to get the spawn ourselves, without assistance from the Government, other than to have a man there to ship it and instruct fishermen as to the mode of collecting it. Although the fishermen were inexperienced in spawn collecting, and received no remuneration for doing so, we filled every hatchery available in Canada, and the last shipment was sent to Detroit, as a present to the people on the other side, because we knew the fish would come back into Canadian waters.

Handicapping Production.

LAST year, on account of the war, the Goverment was impressing upon farmers and others the absolute necessity of producing all food possible. Yet they charged us $250 for a tug license, they would not allow us to fish until the 15th of March, and then, for the first time, they tried to encourage us by adding another $5 a ton on all fish we caught over 80 tons. Thus, they encouraged us to produce more. And then they cut us off on the 15th December instead of allowing us to fish until the end of the year.

I do not blame them for this; the trouble was due to lack of co-operation. We were not co-operating sufficiently with the pound-net people to the west of us; they were fighting us. You have heard the story in the old National school books, of the men who tried to please everybody and, in the end, pleased nobody, and lost an interesting animal into the bargain. That has been the position of the Government in regard to these fisheries. But they are now, I think, sufficiently awakened to the errors they have made and no doubt things will be better next year. There will also be further co-operation between the gill-net people and the pound-net people.

Regulations Protect Pirate Fish.

ANOTHER mistake that has been made for a long time illustrates the want of co-operation. An order was issued by the Minister forbidding the catching of suckers and fish of that kind that go up creeks in the spring. If they were caught by a boy with a net an inspector would jump on him, tear his nets to pieces, and, on conviction, he would be fined; whereas, they should have given him a bonus for every one of these fish he caught. These suckers, and other fish with that peculiar mouth that drops down, occupy the same position to good and commercial fish that the Canada thistle does to a field of wheat. They are spawn eaters, and every one of them will destroy enough spawn to make a ton of fish. Yet the Government, in its wisdom, consulting anglers and people of that kind, and taking inspiration from them, actually prevented the destruction of fish that destroy more valuable fish than all other agencies put together.

Salmon Trout Destroy Many Whitefish.

MR. A. SHERIFF, Deputy Minister, Game and Fisheries, Toronto, recently stated that the Government was establishing more hatcheries, and requested my opinion respecting the Government hatchery at Southampton. I told him that, so far as whitefish were concerned, I was never so sorry for anything as to see what was being done at that magnificent and expensive hatchery; because they are propagating salmon trout, a fish of less value, and one which eats enormous quantities of whitefish. A close season is put upon salmon trout to prevent them from being fished out, yet, as in the case of the suckers, a bounty should be paid on every one of these fish caught. May I give another illustration from my farming experience. Suppose mutton was worth ten cents a pound and wolf meat eight cents a pound. Would it be good business to raise wolves and feed them on mutton? That is exactly what is being done in our fish culture, because, while whitefish is worth ten cents a pound, trout is worth from six to eight cents—and one trout will destroy fifty pounds of whitefish. I have said that the proper way to deal with these matters is to apply common sense to them; the example which I have just given shows the injury which the Government officials may do to the really valuable fisheries by attempting to carry on fish culture without consulting those who have practical knowledge of the fisheries.

A Canadian's Duty

MARGARET McLAREN.

Today, on the bloodstained battlefiields of a foreign country, many of our bravest and best are making the greatest of all sacrifices, that the word "CANADIAN", may be known and spoken with pride by men even at the ends of the earth. Our great country is well worth all that is being done by those who have fared overseas, and that we who are at home may show that we too are patriotic, it is our duty to help as best we may, all movements for a better Canada, and we can do this by helping the enterprises that will make our country, because of its bountiful resources, one of the greatest commercial centres of the world.

The promoter's of the fishing industry are about to inaugurate a campaign which has for its aim the establishment of a new and National fish day each week.

The working man shall be made to realize as never before, the value of the waters of our native land, which, teeming with valuable food material, are as it were, a great expanse of aquatic agriculture, whose "PRODUCE" awaits all those who will go out upon those lakes and rivers, and upon the bosom of the broad Atlantic to garner them in.

There is not much romance about fishing, but there is a great deal of pure business about it. However, modern business requires advertisement, and the writer would call the attention of all those in the trade to the advantage of the "MOVIES" as a means of making thousands of people realize what they are missing in not making fish a chief article of diet in their homes.

Would not the picture of a fishing schooner be just as attractive to the City dweller, and more of a novelty than the cut and dried "DRAMA" usually flashed on the screen, if the schooner, was followed by other interesting views of a fisherman's daily life?*

The value of the SHOW thus given for the benefit of the fish business will be realized after a little while, in the receipts of a greater demand for sea food. In the same way, the fishermen of isolated localities could be taught a great deal by having matters arranged presumably by the Government, so as a number of views and necessary information, could be brought to their attention during the various dull seasons, particularly during the winter months.

And it may be well to remark that Fishing as an occupation ought to receive as much consideration from the youth of Canada as any of the various pursuits now followed by so many.

The inauguration of a National fish day will be followed on the part of many with interest, and because of the saving value of fish as a food stuff doubtless, if well enough advertised, the movement will be a success.

[NOTE.—*The Editor of the CANADIAN FISHERMAN, Mr. F. William Wallace, photographed a complete Bank fishing voyage in motion pictures in March, 1916. The film is at present being circulated throughout Canada].

The Fish and Fisheries of New Zealand

By PROFESSOR EDWARD E. PRINCE, LL.D., D.Sc.,
Dominion Commissioner of Fisheries, Ottawa.

NEW ZEALAND is a land of contrasts. Almost everything to which an American or European is accustomed is there reversed. Midsummer there is midwinter here. The northern parts are warm, almost tropical, while the cold increases further south, and Stewart Island at the southern extremity of the Dominion, has a climate as cold as Scotland. The most characteristic birds are practically wingless, and do not fly. The typical forest trees do not shed their leaves, and the luxuriant bush and the extensive plains of New Zealand, have never had any four-footed animals living upon them until introduced by the white man. The fisheries are no exception, and while the waters of New Zealand are prolific in fish, the most familiar and important food fish are totally absent, no cod, haddock, or true mackerel being found there.

Resemblance Between New Zealand and Mediterranean Fish.

The latitude being between the 34th and 45th South parallels, the climatic conditions resemble those of Spain, or Portugal, or the southern part of Italy, and the typical fish recall in many ways, those familiar in the Mediterranean, and sold in the markets of Naples, Messina, or Lisbon.

Survey of New Zealand Fisheries in 1914.

IT was my privilege two years ago to make a survey of the fresh-water and sea fisheries of New Zealand, at the request of the Government of that Dominion. My inspection was very complete, as I had all facilities afforded by the authorities for visiting every locality where fish occurred, and as very favorable weather prevailed during my lengthened cruises, I was able to make a complete survey in the five or six months allotted to the task.

I commenced my survey in April, the beginning of the New Zealand winter, and continued until the advent of spring, in the month of September. The beautiful government cruiser "Hinemoa," under command of the accomplished Captain Bollons, was used during my dredging, otter-trawling, drift-net and other experiments, and as Chief Inspector L. F. Ayson accompanied me, I had an unusual opportunity of making a full investigation of the fishery resources of New Zealand.

Scenery.

It is not necessary to refer at length to the character of the country, for the scenic beauty of "Maoriland" is famous all over the world. Her snow-capped mountain ranges, running like a backbone through the whole country, and the vast glaciers and lofty peaks, are not excelled by the Swiss Alps, or by the Rocky Mountains of this continent. The fjords of the southwest coast are unexcelled for magnificent grandeur and tropical forest luxuriance, while the hot springs, geysers, and other volcanic phenomena are more wonderful and extensive than in any other part of the world.

From a fishery point of view the sheltered bays and romantic straits and extensive inshore fishing banks, are of the highest importance, while the picturesque lakes of which the larger in size exceed twenty in number, the swift flowing rivers, more than one hundred of them, provide the most favorable conditions for great and productive fisheries, and the scenery and the fertility associated with these waters, recall in many ways, the fishery conditions of Japan.

Area.

The two main islands, with Stewart Island at the southern extremity, embrace an area of 103,581 square miles, and extend a length of about 1,000 miles, with a breadth varying from fifty to two hundred miles. The coast line, 4,330 miles, is indented by beautiful bays like the Bay of Plenty, Hawkes Bay, Golden Bay and Hauraki Gulf, etc., and the picturesque shores are washed by the open South Pacific Ocean on the east, and deep Tasman Sea on the west.

Area of Available Fishing Limits.

I ESTIMATED the inshore waters, 10 to 30 fathoms deep, at not less than 20,000 square miles, while about 25,000 square miles range from 40 to 50 fathoms in depth, and outside these (10 to 20 miles from shore) the depth descends to 300 or 400 fathoms, and greater depths lie beyond. The inland lakes are famous for their exquisite beauty, the shores in most cases being backed by lofty mountains with forests of tree-ferns and giant kauri and totara tree, the beautiful red pine, rata and various birches or beeches. Some of these lakes are of considerable area, Taupo for example, 250 square miles, Te Anau, 132 square miles; Lake Wakatip, 120 square miles; the last descending to a depth of 1,300 feet in some places. The total area of the lakes including rivers, some of which like the Clutha or Molyneux are 150 miles length, approaches 15,000 square miles or about one-sixth of the area of the Great Lakes of this continent.

Value of Fisheries; Number of Fishermen, Etc.

The fisheries have not been developed to any great extent, the population of New Zealand being small (1,115,000), and the demand for fish limited, while the main outside markets have been those of Australia, to which considerable exports of fish have been made. 1,500 or 1,600 persons are engaged directly in fishing or handling fish, about 1,000 of these being actual fishermen, while the annual value of fish caught probably does not exceed $500,000, including about $200,000 worth exported, mainly to Australia.

It is remarkable that New Zealand imports, annually, fish to the value of $540,000, mainly from the British Isles, notwithstanding that her own waters are so productive, and many species of excellent fish are abundant.

Number of Species of Fish.

Over three hundred species of teleostean fishes have been described in New Zealand, but of these not more than thirty-five are regarded as food fishes, and even some of these are not in public favor, although in many cases exceedingly good table-fish.

Blue Cod of Importance Economically.

THEY belong very largely to the rough scaled spiny-finned kinds of which the red snapper and groper are types. Amongst the more important species must be counted the blue cod, Parapercis colias, Forster, which is in great favor, and though not a large species, is regarded perhaps as the best of the food fishes in New Zealand seas. There is a large domestic demand for it and cured and smoked it is exported in considerable quantities to Austarlia. Captain Cook called it the "coal" fish, and remarked on its abundance, and it is still very plentiful, and of widespread occurrence all along the coast, especially on precipitous rocky shores. They are caught in from 10 to 15 fathoms depth, and range from one up to five pounds, reaching ten pounds weight off D'Urville Island, Cook Straits, and not belonging to the cod family, it is curious how it has acquired the name, especially as its colors are very brilliant; often a dark green along the sides marbled with brown and a patch of green over each eye, while the under side is greyish white. The fins are grey spotted with brown, and the dorsal fin, the first five rays of which are sharp spines, runs the whole length of the back. As already stated it is a delicious fish when smoked, but when very slightly salted, it is much in favor, and is of unusually excellent table qualities. Hardly less important is the gigantic Hapuka or Groper (Polyprion oxygeneios Bloch) which is really a hugh sea-bass or sea-perch, and ranges from 40 to 50 or even 100 pounds in weight. It belongs to the order Serranidae, and frequents depths of 60 to 90 fathoms, or even still deeper water. It is usually caught by baited hand-lines, but will frequently not take the bait in July, when the fishermen state that it is spawning. A still larger species occurs at greater depths outside, and is called P. Americanus. The gropers are, on account of their firm, white flesh, and their large size, exceptionally important from a commercial standpoint.

The Moki, which is one of the Latrididae, though less esteemed than the groper, is an excellent food fish, and when smoked, is equal to finnan haddie. It is a handsome perch-like fish ranging from 2 to 19 pounds in weight, and frequents water 10 to 40 fathoms deep. There are two species, the more abundant being Latris ciliaris, Forster, which sometimes completely fills the fishermen's nets; but another species, Latris lineatus, Forster, is much larger, and specimens three feet long have been taken off Tairoa Head. Both are handsome perch-like fishes, silvery on the sides, and lead-colored with a golden sheen on the back.

The Snapper a Valued Species.

ONE of the most familiar food fishes, and generally esteemed, is the snapper, Pagrosomus auratus, Forster. It is an active, handsome fish, and typical of the family Sparidae, with a high back, markedly forked tail, serrated brilliant scales, and of a delicate rose color, fading into grey along the sides. The snapper is very widespread, abundant in the north and extending even as far south and west as Dusky Sound. It is plentiful near Auckland and Poverty Bay, especially around the weird eternally-smoking White Island. As many as 2,000 snappers are often taken in a single haul. On hotel bills of fare, in New Zealand, this red snapper is a favorite item, and the firm white flesh, and delicate, if not very marked flavor, cause them to rank high as food fishes.

Conger, Ling and Other Fish Wasted.

Fine conger eels, sometimes of a striking yellow color, frequent the offshore waters, and specimens reaching a length of 6 or 7 feet are quite common. The species is Leptocephalus conger, Forster, and it is scaleless, but has very firm and palatable flesh. The conger eel is not eaten in New Zealand, and quantities are dumped overboard each season by the fishermen, and as on this continent are thus wasted; nor does the ling, Genypterus blacodes, one of the Ophidiidae, fare better. Ling range from 10 to 20 pounds or over, and are common on the shores of South Island, but are not eaten, though the flaky flesh is white and salts well.

Kingfish or So-Called Barracouta.

THE savage looking so-called Barracouta or Snoek, Thyrsites atun, Euphrasen, is abundant, three feet long and five pounds and over, in weight. Split and smoked, it sells readily, and large quantities are taken by the fishermen. Its abundance may be judged from the fact that two men will take 250 to 500 in three or four hours fishing. The name Barracouta, is sometimes given to two other fish, namely the king-fish, of the South Island, Rexea furcifera, Waite, and the fine silvery king-fish of North Island, Seriola lalandii, really the Yellow Tail or Amber Fish of Florida and the Carolinas. The former, which belongs to the Trichiuridae, exposes two formidable canines on the projecting lower jaw, even when the mouth is closed, and it has thus quite a ferocious appearance. The latter, one of the Carrangidae, is remarkable for the size it may reach, some specimens being 40 pounds weight and 4 feet long; but usually they are smaller, 6 to 10 pounds in weight. Both of these fish are fine food-fish, but do not keep well in a fresh state. Great quantities of the South Island king-fish are split, salted and smoked for home and export trade.

Trevally and Other Kinds.

Two fishes common in New Zealand waters are called Trevally, one, Seriolella brama, Gunther, and the silvery sea-bream generally called the Warehou. The former attains a length of two or three feet (12 to 14 pounds weight) but those of smaller size are better flavored; and the sea bream, Caranx platessa, which occurs everywhere, often in enormous numbers ranges from 2 to 3 pounds in weight. The latter is a typical Caranx, whereas the Warehou belongs to the family Stromateidae, to which the "dollar" fish and other familiar kinds belong. A very handsome species which recalls the salmon on account of its elegant shape and active rapidity in the water, is the Kahawai, Arripis trutta, Forster, 3 to 7 pounds or more in weight, greenish grey on the back with lead blue spots, white sides, and a dark elegantly forked tail. It occasionally ascends some of the northen rivers for 30 or 40 miles, and it is not surprising that the name "native salmon" has been given to it, though it belongs to the family Sciaenidae, under which the sea-drum and many tropical and sub-tropical fishes are ranged. One familiar table-fish has a widespread range, namely the Terakihi (Cheilodactylus macropterus), a small elegant bass-like fish ½ to 1½ pounds in weight, though it may reach 6to 7 pounds; but it is not very highly esteemed by epicures.

Frost Fish (Lepidopus.)

OF the less abundant fish, mention must be made of the remarkable Trichiurid, the frost fish or hiku, Lepidopus caudatus, Euph., 4½ to 5 feet in length, for which, however, no regular fishing can be carried on, on account of its erratic and peculiar mode of occurrence.

Each season quantities are taken after frosty nights in winter, being cast upon certain flat beaches, and writhing like silvery snakes, 4 to 5 feet long, may be captured by hand, hundreds at a time. The flesh does not keep very well, but it sells at high prices in the local markets, for it is regarded as one of the most delicious fishes in New Zealand waters. The cause of this suicidal tendency is a mystery. Possibly they are male fish, affected seasonally, as has been found to be the case with the pollock, and other marine species.

Hake, Red Cod and Other Kinds.

The esteemed John Dory, Zeus faber, the hake, Merluccius gayi, sometimes called whiting, the mackerel, Scomber pneumatophorus, the sword fish, and a species of pilchard, are native to New Zealand waters. A small herring not to be compared with the herring of northern seas, also occurs. The small red cod, Physiculus bachus, Forster, 12 to 20 inches long and 2 to 5 pounds in weight, is very widespread, but vast quantities are thrown away by the fishermen because there is little or no demand for them. The fish is somewhat insipid, but it could be readily utilized on a large scale, for when smoked, its qualities are much improved, and it is one of the most plentiful of inshore fishes. They disappear for a season or two unaccountably, after one or two seasons of abundance.

Waste of Fine Gurnards.

HARDLY less abundant is the gurnard (Prionotus), of which three kinds occur, the commonest is of a brilliant red color with fine, firm flesh, but so little desired by the public that tens of thousands caught by the fishermen are thrown back into the sea. It is not inferior to the esteemed gurnards of Europe, but is usually wasted in large quantities each season.

Flat Fishes of Various Species.

Of soles and flat fishes, there are man species. The New Zealand sole, Peltorhamphus, is very highly esteemed, while the so-called turbot, Ammortretes, and the brill and the lemon sole (Pelotretis) are very common and of very good quality, but the Megrim (Caulopsetta) and Sand flounder (Rhombus solea) though extremely abundant, are very much inferior in quality.

The Esteemed Mullet.

Mention must be made of the Mullet (Mugil) which has been caught in large quantities in the northern estuaries, 150 dozen being taken at one "set" on the Kaipara River. It has also been canned, and like all the Mullet family, is a most delicate and delicious fish.

A curious Chimaeroid fish is surprisingly plentiful. It is the Elephant Fish (Callorhpnchus) and most grotesque in shape, though handsome, owing to its bright silvery coloration. The flesh is white and firm and might be utilized if public prejudice against the sharks and their congeners could be overcome.

Lobsters, Oysters, Etc.

OF the crustacea, the reddish spiny lobster, Jasus Edwardsii, is extremely abundant, and may be captured in enormous quantities along the shores generally. The flesh is not quite so delicate in flavor as the true lobster, but as in Cape Colony, there is ample scope in New Zealand for a lobster canning industry, the spiny lobster being not only extremely plentiful, but of large size. It must be added that there is practically no claw meat in this species as the nipping claws are very small.

The oysters of New Zealand are very remarkable as one kind is dredged in fairly deep water and another kind, the delicious and delicate rock oyster, is found coating the rocks over large extents of the coast. This latter oyster, Ostrea glomerata, Gould, is cup-like in form, and of extremely delicate flavor, but it must be fished for with a hammer and chisel as the bunches of these shell-fish adhere firmly to the rocks, mainly in the northern waters of New Zealand. Deep-sea oysters occur especially in the Foveaux Straits in 15 or 20 fathoms, and are of considerable size and exceedingly good quality, though not equal to the rock oyster. They are scientifically called Ostrea angasi, Sowerby.

New Zealand Clams are Superior.

A most excellent clam occurs, especially on certain shores of the North Island, called the toheroa, a very delicate and delicious soup being made from these shell-fish. Quite a fishing industry has been developed on the clam beds, which occur over considerable areas of the eastern shores.

A few words are necessary in regard to the fresh-water fish which were almost absent from the rivers and inland waters before the white man settled in New Zealand. The native fresh-water species are very few, and not to be compared with the fresh-water species of North America.

Eels, White-Bait and Other Native River Fish.

NATIVE eels (Anguilla) are extremely abundant, and indeed are a menace to superior fish, but the white-bait or small Inunga, is extremely abundant, and much esteemed as a delicacy on the table.* There are several species of so-called native trout or Kokopu (Galaxias), and they afford a small amount of sport, but they have been altogether overshadowed by the introduced species, namely the rainbow trout, European brown trout and the Pacific cutthroat trout.

Introduced Trout, a Great Success.

They have established themselves thoroughly in New Zealand, and all of them reach a large size. Fish 5 to 7 or 8 pounds are quite common, and specimens have been taken in numbers weighing 25 to even 27 pounds. No fishing in the world can excel the trout fishing in such lakes as Taupo, Rotorua and Wakatipu. The Atlantic salmon, though repeated attempts have been made to establish it, has not been a success. A small proportion seems to have survived, and there are records of grilse being caught around the shores, but the introduction of this species must be regarded as unsuccessful.

*Locally stated to be the young of the New Zealand Smelt (Retropinna) and the so-called native trout (Galaxias), but the specimens examined by me were the young of the latter (Galaxias).

Quinnat Salmon Acclimatized.

It is otherwise with the spring salmon or quinnat of the Pacific Coast of America. This fine Salmonoid is now thoroughly established in several New Zealand rivers, and the fish spawn regularly each season, so that there is a great future in store for the Pacific species of salmon. Great credit is due to the head of the Fisheries Department, Wellington (Mr. L. F. Ayson), for his zealous and successful fish-culture work. The Acclimatization Societies too merit a meed of praise for their splendid efforts with fish and game.

Whales, Seals, Etc.

A CLOSING word must be said about the wonderful whaling and sealing industries which have been carried on for a long period in New Zealand waters. Whales still occur and fur seals are also found, but both are in such diminished numbers, that their total extinction in the near future is to be feared. It is hoped that protective measures may be effectively enforced as the New Zealand Government has shown itself willing to carry out a wise policy in regard to certain native animals. It has extended its protective legislation to marine creatures in a unique manner.

"Pelorus Jack."

It is well known that a fine specimen of Risso's grampus, known the world over as "Pelorus Jack" was protected by special legislative enactment. This creature 14 feet long frequented Pelorous Sound in Cook Straits for over fifty years, and was accustomed to meet and accompany steamers, navigating through the sound. Tourists always looked out for "Pelorus Jack" and under parliamentary protection it continued unharmed until recently when it ceased to appear, and is believed to have been criminally killed, or to have died from old age.

Promising Future for New Zealand Fisheries.

The varied fresh-water and marine products of New Zealand, are such that a great future lies before the fishing industries, if they are developed and properly conserved. Fishing can be carried on all the year round practically, owing to the fact that there is no winter season in New Zealand and the hardships of winter fishing are unknown, though stormy weather, especially on the west coast is often a serious interruption. No systematic prosecution of the fishing industry has really been carried on on an adequate scale, and the limited markets and small local demand may partly account for this, though complaints are common in New Zealand that the people cannot get supplies of their own fish at reasonable rates. There is no reason why canning and curing industries should not be carried on upon a large scale, and New Zealand fishery products shipped to all parts of the world. Instead of importing preserved fish in large quantities as at present, New Zealand should export extensively. The government has indeed had in view a great scheme of fishery development, and my own report made in 1914, will no doubt offer much guidance in this future development.

LABRADOR SEASON OVER.

The Burin banking schooner Preceptor, arrived at St. John's, N.F., last week from Labrador, where she has been operating for the past couple of months. She had a good season and secured nearly a load. The fishery is now over and many bankers which were fishing on the coast are on the way home.

BRITISH FISHING NOTES.

By COLIN McKAY.

While the prices of most varieties of fish on retail markets of London and other large cities of England are nearly double what they were in July 1914, the average of prices has shown a decrease since the beginning of the present year; a tendency, however, not likely to continue with winter approaching. According to Board of Trade figures, the percentage increases over the average for the years preceding the war are as follows:

August 1914	August 1915	August 1916.
13	77	97

In January of this year the percentage of increase over the bare price was 111; Feb. 126; March 115; April 108; May 117; June 103; July 97.

Some quotations from a recent Billingsgate market may be of interest.

Scotch Salmon	2s 10d per lb.
Halibut	1s 4d " "
Cod	7d to 10d " "
Bull	1s 4d " "
Soles	1s 8d to 2s 4d " "
Plaice	1s 4d " "
Herrings	1s 6d " doz.
Lobsters	3s to 3s 6d " each

Rather marked fluctuations of prices of different fish occur from day to day, as supply and demand varies.

Latterly there has been a considerable scarcity of dried haddocks, kippers and bloaters. Lobsters and crabs are a rich man's delicacy, but oysters are fairly plentiful, and selling at prices which considerably extends the ordinary circle of consumers.

According to Board of Trade returns the increase in retail prices of foodstuffs coming within working class expenditure since the beginning of the war may be put at 60 p.c., which is reduced to 54 p.c. if the increase in the duties on tea and sugar is deducted.

* * *

Scarcity and high prices of fish are largely due to the depletion of the fishing caused by the commandeering of large numbers of trawlers for admiralty purposes and losses by submarine and mine, and also by the restriction of fishing areas. Between Aug. 4, 1914 and Oct. 31, 1915, 158 steam trawlers of 10,834 tons and 69 sailing craft of 3,270 were sunk by enemy war vessels or mines. During the same period the losses under other heads (founderings, shandings, collisions, missing and other causes) were, for the fishing fleet 68 steam vessels of 3,810 tons, and 76 sailing vessels of 1,940 tons. Of the missing 38 were steam vessels and 10 sailing vessels, many of which were supposed to be destroyed by mines or other enemy action.

STUDIES MARKET FOR GRAYFISH.

Thomas Douthart, from the Bureau of Fisheries at Washington, is in Boston studying the market conditions for grayfish. Grayfish, formerly known as dogfish, was regarded as of no value for food, really as a nuisance to fishermen, because they destroy fishing gear.

Now it has been discovered that dogfish, properly cooked, are delectable to the taste. Mr. Douthart believes that it will become a popular foodfish under the new name.

CANADA'S FISHERIES DURING SEPTEMBER 1916.

(Furnished by the Naval Service Department).

The weather during the month of September was generally suitable for fishing, but scarcity of bait and the presence of dogfish hampered the operations of fishermen on the Atlantic coast.

In the L'Etete district of Charlotte County, New Brunswick a large run of sardines occurred during the latter half of the month, while some very large catches were taken at St. John.

Several fishing vessels were hauled up in Yarmouth county during September owing to scarcity of men.

Herring fishing was very slack along the south and and south western shores of Nova Scotia. Mackerel and herring were plentiful off the shores of Cape Breton, but dogfish prevented successful operations.

In Prince County Prince Edward Island, good catches of herring were landed on two occasions by the few boats that operated. Mackerel were plentiful at first but they disappeared quickly.

The fishermen of Gloucester County, New Brunswick found codfish rather scarce, during the month, while the herring fishery on Caraquet Bank was very poor.

Fine fishing weather prevailed at the Magdalen Islands and fishing of all kinds was good, especially mackerel fishing which gave excellent results.

On the Pacific coast the weather was favourable for salmon fishing.

Offshore, in the northern part of the province, however, there was a considerable amount of bad weather which together with a scarcity of bait caused the price of halibut to be very high at times.

In the Fraser River district a gale at the end of the month resulted in the loss of four Japanese fishermen and two or three boats.

Two fishermen were drowned in the Nass River district, and in Vancouver Island district a gasoline fishing boat was destroyed by fire, and one man lost.

The catch in the following Counties being confined to a few kinds is not given in the usual tabular form:—

Nova Scotia

Colchester: Cod 130 cwts. landed, value $260; used fresh 40 cwts. fillets 20 cwts. dried 10 cwts.

Antigonish: Herring 765 cwts. landed value $765; pickled 255 barrels. Mackerel 85 cwts. landed value $340. used fresh 4 cwts. salted 27 barrels. Total value of fish landed $1,105.

Hants: Cod 5 cwts. landed value $30. used fresh 5 cwts. clams, 12 barrels landed value $25 used fresh 12 barrels. Total value of fish landed $55.

New Brunswick.

Albert: Herring 8 cwts. landed value $16. used fresh.

Restigouche: Cod 40 cwts. landed value $120. used fresh 40 cwts. herring 75 cwts. landed value $75. used fresh 15 cwts. pickled 20 barrels. Total value of fish landed $195.

The following is the result of the fishing in Saguenay County, Quebec, for the month of August:—

Salmon 81 cwts. landed value $486; pickled 54 cwts. Lobsters, 90 cwts. landed (in July), value $630; canned 45 cases, cod 32,742 cwts. landed, value $47,990; used fresh 227 cwts.; green-salted 2,445 cwts. dried 9,730 cwts. Herring 913 cwts. landed value $1,-313; used fresh 25 cwts; pickled 144 barrels; used as bait 226 barrels. Mackerel 15 cwt. landed value $96. used fresh; Sardines 3 barrels landed, value $6. used fresh. Halibut 53 cwt. landed, value $195 used fresh. Flounders 2 cwts. landed value $4. used fresh. Clams 82 barrels landed value $189. used fresh as bait. Squid 10 barrels landed value $20. used as bait. Launce, 270 barrels landed value $270 used as bait. **Total value** of all fish landed $51,199.

N.B. The values herein shown are based on the prices of the various kinds when first brought to land by the fishermen.

NEWFOUNDLAND NOTES.

CODFISH.

The Trade Review says:—"Quite busy along the waterfront this week in the discharging of fish from outport schooners. The price for Labrador Soft is $6.25 to $6.30—a drop of 30 to 40 cents—as compared with the week before the Stephano was lost. Labrador Shore cured, which is scarce compared with the other quality, is $7.70, and Shore Merchantable $7.50 to $8.00. Shore fish will hold its own, but Labrador is not so certain. Conditions point to a weakening in the price when the big lots come in next week.

CODOIL.

The price of common oil has now reached the highest price in the local market for many years, that is $165 to $170 a tun. Those who have good oil and can afford to hold on to it till New Year, will probably get $175. Refined oil is in a poor demand as ever. It is not easy to get $1.30, and only small lots are bought by exporters at one time. The orders are not coming in.

HERRING.

Split herring out of schooners are still selling for $3.80, with good demand. Herring ready for shipment can command $4.50, but very few barrels coming in are in that condition. Most need to be re-packed and re-pickled. The Scotch cure market in New York wants the herring, but they must be put up right in order to fetch the top price.

LOBSTERS.

Nearly the whole season's catch to the westward of St. John's is in. The catch in the Northern outports, which is the smallest on record, is coming in almost daily now in schooners, in addition to what comes on by the coastal boat. The price in the city advanced this week to $17.00 for No. 1 cases of one pound flats of 48 tins. This is the best price since the war broke out, and will probably be the record for 1916.

HIGH FOOD PRICES.

The fishermen in town this week are appalled at the high prices of all the principal food stuffs. They had heard the reports at home that "provisions was awful high in St. John's" but the reality far exceeds what they expected. Flour $10.00, that used to cost $5.00 a few years ago. Pork, $32.00 a barrel. Molasses, 60 and 65 cents a gallon for best. Beef, $25.50. Hard bread, $6.20. Peas, $5.00 a barrel. The war being on the past two autumns and the expectation existing in the minds of many that it would soon be over, most fishermen refrained from buying any more than the bare necessaries of life. The food had to be bought. The dry goods, which had advanced so much in price, must wait till the war is over. As a result there was a minimum of buying in these lines the past two years. Now the home stocks are worn out or reduced so low that buying can no longer be put off; but the prices are higher than ever. This is the problem that nearly all the fishermen have to face this fall.

The clothing, boots, shoes and in fact all the dry goods material used in the household is about worn out, and it is as necessary now to replenish the stocks in these lines as in provisions. There are thousands of people who have not bought a full suit of clothes since the year before the war. It was in this line they believed that they could most conveniently economize till the war would be over; but the war is not over, and all the signs are that it will go on for at least another year. The dry goods problems are to be faced thru this fall when the flour is $10.50 and pork $32.00. Therefore, a fisherman would need to have twice the number of quintals of fish even at today's price to be in as good a position as he was financially in the fall of 1913. The fishermen no doubt, will get through some how. Meantime no matter how much fish he got this summer, it is better not to offer him the cold comfort of congratulation. He will need it all and more to get what he wants for the winter after paying his summer's account.

CUBAN MARKET CONDITIONS.

The following report of prices ruling at the Havana Produce Exchange for the week ended October 13, 1916, has been furnished by Mr. Enrique R. Margarite, S. en C., 66 San Ignacio street, Havana:—

Fish in Drums.

Importation:—
October 10, SS. Limon, 15 drums.
October 11, SS. Saratoga, 40 drums.

The demand for codfish is falling off every day, to such an extent that great difficulties are experienced in disposing of it, even in small lots. Haddock, however, is in very active inquiry, and, consequently, the price has made a further advance. This active inquiry also applies to hake, but quotations on this fish stuff remain unchanged. Codfish is quoted at 8.50, haddock at 8.75 cents per pound.

Codfish in Cases.

Importation:—
October 9, SS. Chalmette, 300 cases from New Orleans.
October 10, SS. Limon, 660 cases from Boston.
October 11, SS. Saratoga, 252 cases from New Yor.
October 11, SS. Pastores, 100 cases from New York.
October 11, SS. Jalisco, 111 cases from New York.

A better demand has prevailed for codfish in cases and while the price on Norwegian cod continues unchanged, that for other sources has improved. The former class can therefore be quoted at $15 and the latter at $12 to $14 per case.

Herrings.

As the demand for bloaters has fallen off, the price declined to $1.35 per large box.

WHALE FISHING INDUSTRY.

International Regulation Necessary to Secure its Continuance.

Whale fishing, like every other industry, has felt the far-reaching economic effects of the war. Glycerine, which is useful in the manufacture of explosives, is obtainable from the oil of the "humpback," "finback" and "sulphur bottom" whales. As Pacific whale oil averages 6 to 10 per cent of glycerine content, with a maximum 14 per cent, a rise of 10c to 20c per gallon since the outbreak of war has given a pronounced impetus to whale-fishing in Pacific waters.

The pursuit of whales for oil and bone has declined very seriously from the high water mark reached in the middle of last century. While the "right" whale has become so scarce taht the price of baleen or "whalebone" has risen from $1,250 per ton in 1835 to about $12,500 to-day, the price of oil, despite the upward trend caused by the war, has seriously declined from the level of former years. Sperm oil had declined from upward of $1.00 per gallon, in the fifties. to less than 50c in 1913 and ordinary whale oil was sold for 35c. These low prices, together with the increased cost of fitting out shops — $65,000 in 1853, as compared with $150,000 to-day—have made the industry unattractive to American capital. The decline in the New England whaling industry may thus be explained on economic grounds.

There is a tendency to scout the idea that whales are becoming scarce but the fact that the whalers are going further and further afield demonstrates that the old grounds are becoming depleted.

A very flourishing fishery has grown up in the Antartic. South Georgia, previously uninhabited now has a large industrial village with three slips for cutting up whales, two guano factories, and large reservoirs for oil. In 1914, the catch was 7,000 whales, which produced 34,000 metric tons (about 310,000 barrels) of whale oil, enough to fill a basin in which a 100-ton steamer could manoeuvre. One company, with a capital of $182,000, has, in two years, distributed an annual dividend of 130 per cent, besides adding a portion of the profit of various reserve funds and increasing its resources 60 per cent.

Although whaling is still a flourishing industry in certain quarters of the globe, these enormous profits spell the doom of the whales unless an international agreement can be arrived at to regulate the killing. Of course, an increasing scarcity of whales may make the business unprofitable, and, as in New England. the majority of the hunters may be driven from the field. Then the whales may get sufficient respite to enable them to re-establish themselves. But, leaving the conservation of natural resources to the blind play of economic forces is both dangerous and unsatisfactory. Not only may it lead to the utter destruction of an irreplaceable resource—as an animal species—but it builds up a huge industry in the boom days—when the principal as well as the interest is being greedily consumed—only to be followed by a wretched decline when large numbers of men lose their livelihood and expensive plants rot through lack of use. Proper regulation would minimize this expansion and contraction and would ensure a steady supply and a more stable condition of industry.

German Fisheries After The War

THE FISHERIES of Germany have suffered severely from the war, and much attention has been given to the question of the condition of the fishing industry when the war comes to an end, and of the means and methods that ought to be adopted to revive it. A number of articles and papers have from time to time appeared in the German fishery journals in which the subject is discussed. Most of them, as might be expected, are fervently patriotic, not to say frothy, in their sentiments, and they generally preach on the text of the Teutonic hatred of England — that Tyrant of the Sea, which not only keeps the High Sea Fleet sealed up in the Kiel Canal, but manages to secure for herself the greater part of the North Sea fishery harvest.

Shore Fisheries.

The sea fisheries of the Fatherland before the war consisted essentially of, first, the shore fisheries; second, the deep-sea trawl fishery; and, third, the deep-sea herring fishery. Among the shore fisheries must be included practically all the fisheries of the Baltic. That sea is not fitted for trawling, or indeed for any sort of deep-sea fishing. Shortly after war broke out and the activities of German trawlers in the North Sea were seriously restricted, there was an outcry for the development of trawling in the Baltic, which was under German control; but cold comfort was afforded when the authorities declared that the Baltic was a "dead sea" for any such purpose. The fish furnished by the Baltic shores and the great lagoons or "haffs" such as the Frisches Haff east of the Gulf of Dantzig, the Kurisches Haff in East Prussia, and the Stettiner Haff in Pomerania, are eels, flounders, herring, sprat, small cod, and plaice, with a few others. On the North Sea coast the shore fisheries are of much less importance than those of the Baltic, but a fair amount of fishing is carried on at the mouth of the Elbe and along the adjacent coast. So far as information goes, the war has not had a serious effect on the coast fisheries. In the Baltic, indeed, they have been extended along the occupied Russian territory.

The Steam-Trawling Industry.

This was one of the most important for Germany. The base of operations comprised the North Sea ports Geestemunde, Altona, Hamburg, Cuxhaven, Bremerhaven, and Nordenham, and the German trawling fleets fished over the same grounds as the English fleets — in the North Sea, at Iceland, and the White Sea, in the Skagerrack, and the Cattegat. The war seriously affected the trawling industry, but it did not bring it to an end. German trawlers were still able to work along most of the eastern side of the North Sea and in the Skagerrack and Cattegat — at least for some time. Owing to this and the great increase in the price of fish several of the trawling companies did well and increased their dividends. Now, however, such information as is available shows that their operations are extremely limited, and it is known that, following the English example, most of the steam trawlers have become patrol boats, and a considerable number have been captured or sunk. Nevertheless it is claimed that the steam-trawling fleet has been increased. An account published last year stated that in 1914 it was increased by thirty vessels, as gaainst an increase of twenty-five vessels in 1913 and eighteen in 1912; ten of the new steamers were for Altona and eight each for Cuxhaven and Geestemunde. On January 1, 1914, the steam trawlers numbered 250, of 49,460 tons; in 1915 they are said to have numbered "300," of 60,000 tons, some of the larger being of 200 tons, with engines of 350 to 400 horse-power. But in an account published in May last it is stated that only nineteen new steam trawlers were built in 1915, six for Altona, six for Cuxhaven, four for Geestemunde, two for Hamburg, and one for Iceland. The boast is made that for six years Germany has built all the steam fishing vessels she required, and even exported some—to Brazil and Iceland. It is claimed as now "certain" that after the war the German steam-trawling fleet "will not be essentially less' than it was in 1914, and that it will compare favorably with the British fleet, which has lost "more than 300" vessels. Besides the nineteen new vessels which actually took the water last year, it is said that "about thirty" other have been ordered.

It may be presumed that after the war the German trawling fleet will resume operations on a scale but little under what it was when the war began, and the prospect does not concern us in the least, except on one point. The fact that the dried-fish industry at Aberdeen was before the war almost entirely dependent on the supplies brought to that port from Iceland by German trawlers is often commented on in German papers. If one may believe the statements now made in Germany—as by Herr Duge, the Fishery Inspector at Cuxhaven, who is a competent authority on fisheries, though at present inflamed by hatred of England — when the time comes again for German trawlers to fish at Iceland their cargoes will not be diverted to Aberdeen, but will be reserved for Germany, for the dried-fish factories, lately flourishing, now closed. The threat is not an empty one. If the responsible authorities tell the trawlers to bring back their fish to Germany they will obey, though it involve loss to themselves.

The Herring Fishery.

IT IS the deep-sea herring fishery which has chiefly suffered through the war, and it is in regard to it that the most far-reaching proposals are made. The herrings were all caught on the wettern side of the North Sea, off the British coasts, and were cured and packed on board, exactly after the Dutch manner. When war broke out about thirty of the luggers were either captured or destroyed by the British fleet, and since then the remainder have been lying in port, and most of the companies — the industry is carried on entirely by companies — are financially on the rocks. One hears of few herring luggers being built, but there is an abundance of plans. Germany must have herrings, and she does not wish to get them in future from the hated Englishman, if she can help it. Supplies will be drawn from the neighboring countries which have furnished herrings so generously since the war began, but above all she wishes to catch them for herself. A very simple plan, which cannot have tormented the Teutonic intellect to bring forth, is greatly to increase the fleet of luggers. Another of the same kind is to develop herring trawling to the greatest possible extent (incidentally and characteristically it is claimed that this method of fishing was a German discovery!), and the herring companies are invited to co-operate. But there are new ideas. One put forward by Herr Duge is not only to increase the fleet of herring luggers fishing in the North Sea, but to have associated with them a number of swift steam carriers, which shall daily collect the herrings, fresh or pickled, from the luggers and run home with them, leaving the luggers to continue fishing. It is professed that the cost of the carriers would be largely met by the saving of the three or four voyages of the luggers, and it is also suggested that the carriers should be equipped with herring trawls to do a little business on their own if circumstances should be favorable. By this means the German friers and tinners would get supplies of fresh herrings from the German vessels —a consummation which theyare said devoutly to wish. It will not escape notice that this plan, like all the others, still "in the air," though the war has gone on for over two years, and in the opinion of the writer it will remai nin that exalted position till the end.

Increased Demand for Fish.

WE DO not know exactly, or even approximately, the present condition of the German fisheries, for, unlike us, they have ceased to publish any statistics at all; but it is improbable that when peace comes they will be in as good a condition as they were at the beginning of the war. It is, however, very generally held, and with good reaosn, that the demand for fish in Germany after the war will be greater than before. For one thing, flesh meat will continue for a long time to be scarce and expensive, while fish will be cheaper, and it is said that stern necessity has accomplished what the fish-as-food propaganda failed to do—viz., to teach the population

(Continued on page 370).

PACIFIC NOTES

The gasoline schooner "SEATTLE", which has been one of the successful halibut boats fishing in Alaskan waters the past two years, was sold by her owner, Capt. E. B. Larson, to Capt. Nesland, late of the Schooner "ORIENT". Capt. Larson intends to go to Europe on a long postponed holiday.

Mr. P. J. Sandvick, who has been fish buyer for The Canadian Fish & Cold Storage Company, has left Prince Rupert for Norway, where he intends to spend a three months' holiday.

The extraordinary demand for shipping, and the great shortage of vessels on the Pacific Coast having seventy feet of water, near a wharf at Kake, Alaska. those companies who have refrigeration plants in Alaska, and require to transport their frozen fish to the rails. In former years this business was handled by such vessels as the "ELIHU THOMSON", "AL-KI" and "NORTHLAND". The high freights offered for transportation of merchandise other than frozen fish has been sufficient to induce the owners of the SS. "ELIHU THOMSON" to use their vessel for transporting ordinary cargo, and have chartered her to the United States Government for transportoin of stores between Seattle, Washington, and Alaska. Early in the month of June the SS. "NORTHLAND" sunk in seventy feet of water, near a wharf at Kate, Alaska. Several attempts have been made to float the vessel, but each of them have been unsuccessful.

Among those effected was the New England Fish Company and the Canadian Fishing Company Limited, of Vancouver, but these companies have been able to get over the difficulty by bringing their frozen fish products from Ketchikan to Vancouver in smaller shipments, on the Canadian Pacific Railway Company's Steamships which operate weekly. This was in the nature of an experiment, but the first two cargoes were brought down in such splendid condition that it will be continued until the entire pack at Ketchikan, Alaska has been transported to the rails.

The British Columbia Packers' Association has been sued by the widows of four of the fishermen who were drowned on the SS. "ONWARD HO" when she foundered last January. Although only four suits have been entered against the Company so far, it is understood that a number of others are pending, and the amount of damages asked for in each case is very heavy. It is understood that the defence will be the usual one, that all claims of whatsoever nature are against the ship and not against the owners, and as there is no salvage there are no assets to claim against. In any case, however, it is expected that the B. C. Packers' Association will be put to considerable expense in defending the suits.

The problem of obtaining herring bait for the use of the halibut fishing vessels on the Pacific Coast is becoming more serious every week. As reported earlier in the year, the anticipated heavy run of herring in Northern British Columbia waters and South-Eastern Alaska waters failed to materialize, and instead of the cold storage plants in these districts being able to obtain an unlimited supply of herring, the amount obtained was very small. The refrigeration plant at Butedale obtained what was a comparatively large quantity considering the poorness of the season, but this is being used up rapidly. The plant at Prince Rupert has also practically used up its supply. It is a matter of note that American schooners fishing for the Prince Rupert Market have had to spend as much as ten days at a time hunting from place to place for enough bait to enable them to fish for halibut. In fact, most of them have spent more time looking for bait than they have in fishing for halibut. Every week the situation is getting worse, and unless some herring shows up in South-Eastern Alaska, the situation will be very critical. The vessels fishing out of Vancouver have been better off in the matter of a bait supply, owing to the foresight of the management of The Canadian Fishing Company Limited, which company, early in the season, was able to obtain and put away a sufficient supply of frozen herring for the use of its vessels until the new season starts up.

Mr. Sam Chesebro of Chesebro Bros. New York City, who has spent the last six weeks on the Pacific Coast, arranging for a supply of frozen halibut and salmon for his firm for the coming Winter, has now returned to New York City via the C. P. R. Mr. Chesebro, who was recently married, was accompanied by his wife, and the trip was also in the nature of a honeymoon trip.

The schooner "ZORRA", owned by Atlin Fisheries Limited of Prince Rupert, was taken off the halibut fishing at the beginning of October, and is now being used as a salmon carrier between the Queen Charlotte Islands and Prince Rupert.

Considerable progress is being made in the erection of the new home of The Canadian Fishing Company Limited and The New England Fish Company at Vancouver, B. C. It will be remembered that the plant at Vancouver which was used by these two companies was destroyed by fire at the end of May, the fire also doing considerable damage to the cold storage plant adjoining the wharf and warehouse. Immediately after the fire, the re-building of the cold storage plant was taken in hand, and the work was finished about the middle of September. Immediately thereafter the erection of a new wharf and warehouse on the old site was commenced. This necessitated the entire removal of the old piling, and the driving of new piles. The work is being prosecuted with great energy, and is expected to be completed about the end of Nevember. The Company has been very fortunate in having splendid weather, whereas, under ordinary conditions, heavy rains are expected during the month of October, but so far in October the rain-fall has been practically nil, and as the roof of the new building is now on, rain will make no difference to the progress of the work.

The supply of frozen fish for the Canadian market both East and West, for the coming winter, has been a matter of considerable concern to the producers on the Pacific Coast, as well as to the trade generally. The strike of fishermen on the independent halibut schooners, which lasted throughout the whole of the Spring and the early part of the Summer of 1916, curtailed the supply of halibut both for use in a fresh state and for freezing purposes, to a considerable extent. After this strike ended, there was a further curtailment of the supply, due to very bad weather on the fishing grounds, and also due to the scarcity of halibut.

The salmon also failed to show up in British Columbia and South-East Alaska waters, with the result that the packs of frozen salmon and halibut are very small as compared with those of previous years. To make matters still worse, the high prices of all kinds of food have caused a heavier demand for fish than has usually been the case, with the result that there will be a demand for frozen fish considerably in excess of the possible supply. On these conditions becoming known in the East, a number of the big buyers immediately left for the Pacific Coast to do what they could to get enough fish to supply their trade, but while they were able to do considerable, they were not entirely successful in their efforts.

Another factor which has had a considerable influence on the market, is the extraordinarily large demand made by the Canadian and Imperial Governments for frozen fish for the use of the Troops. These orders alone are sufficient to more than use up the entire frozen fish supply of the Pacific Coast during the coming Winter.

The SS. "INDEPENDENT", belonging to the National & Independent Fisheries Company, of Seattle, was wrecked off Middleton Island, during the month of October. The crew of thirty-eight men were able to get away from the vessel in the ship's dories, and were able to make a landing on the Island. They were later picked up by the Steamer "MARIPOSA" and taken to Ketchikan, Alaska. The "INDEPENDENT" sank in over one hundred fathoms of water, and it will be impossible to raise her.

This vessel was built in Seattle, in 1911, by the late Capt. Andrew Weiding. She was a wooden vessel, 140 feet long, 26 feet beam, gross tonnage 263 tons.

Among the visitors to the Pacific Coast during the past month, was Mr. A. H. Frazier of Blackfords, New York City, and Mr. F. T. James, of The F. T. James Company Limited, Toronto, Ont. Both these gentlemen visited the Pacific Coast in order to insure a supply of frozen fish for the coming winter for their respective firms, and while in Vancouver were the guests of Mr. A. L. Hager, Manager of the Canadian Fishing Company Limited.

Although Japanese are prohibited from securing a license to fish for salmon in Queen Charlotte Island waters, they have nevertheless had an exceptionally active season. This applies especially ot the Japanese at Ikeda Bay and Jedway.

They made a bargain with the Indians, whereby the Indians were to fish for them, and receive three cents for each fish. Dog salmon was chiefly handled. The Indians caught many thousands of this variety and the catch was promptly salted by the Japanese for disposal in the markets of the Orient. The Japanese made a further arrangement with canneries in that part of the Queen Charlotte. They rented nets and cannery equipment on a basis of one cent for each fish. The deal between the Indians and the Orientals seemed to be mutually satisfactory. The Japanese got their salmon and the Indians their cash. The bulk of the salmon was loaded aboard the brigantine "HOKOTO MARU" of Kobe, which will leave about the end of October.

HALIBUT ARRIVALS AT WEST COAST PORTS SEPTEMBER 1 TO SEPTEMBER 30, 1916, INCLUSIVE.

At Prince Rupert B.C.:

Sept. 1.—Washington, U.S., 20,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 1.—Elizabeth, U.S., 6,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 1.—Spencer, U.S., 4,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 1.—Rose Spit, 7,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 1.—Chief Skugaid, 15,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 1.—Tide, 6,000, Atlin Fisheries Limited.

Sept. 2.—Andrew Kelly, 40,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 2.—Chief Zibassa, 30,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 2.—Minnie V,—6,000, Atlin Fisheries Limited.

Sept. 3.—Doreen, 5,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 3.—Vasa, 5,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 3.—Lillian S., U.S., 10,000, Pacific Fisheries Company.

Sept. 3.—Wireless, U.S., 13,000, Pacific Fisheries Company.

Sept. 3.—Mabel A.—U.S., 7,000, Pacific Fisheries Company.

Sept. 3.—Volunteer, U.S., 6,000, Atlin Fisheries Limited.

Sept. 3.—Helgeland, U.S., 25,000, Atlin Fisheries Limited.

Sept. 3.—Venus, U.S., 9,000, Booth Fisheries Company.

Sept. 3.—Maggolia, U.S., 17,000, Booth Fisheries Company.

Sept. 3.—Dixie, U.S., 7,000, Booth Fisheries Company.

Sept. 3.—Elsie, U.S., 13,000, Booth Fisheries Company.

Sept. 3.—Zorra, 20,000, Atlin Fisheries Limited.

Sept. 5.—Vansee, U.S., 40,000, Pacific Fisheries Company.

Sept. 6.—Agnes B., U.S., 10,000, Booth Fisheries Company.

Sept. 6.—Grier Starrett, 20,000, The Canadian Fish & Cold Storage Co.

Sept. 7.—Jas. Carruthers, 40,000, The Canadian Fish & Cold Storage Co.

Sept. 7.—Venus, U.S., 24,000, The Canadian Fish & Cold Storage Co.

Sept. 7.—Trio, U.S., 10,000, The Canadian Fish & Cold Storage Co.

Sept. 7.—Pharaon, 9,000, Booth Fisheries Co.

Sept. 7.—Corona, U.S., 30,000, Booth Fisheries Co.

Sept. 7.—Daisy, U.S., 20,000, Atlin Fisheries Limited.

Sept. 7.—Soya, 5,000, Atlin Fisheries Limited.

Sept. 8.—Treo, U.S., 10,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 8.—Presho, U.S., 14,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 8.—Dora H., U.S., 10,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 8.—Thelma, U.S., 20,000, Pacific Fisheries Company.

Sept. 10.—Constitution, U.S., 55,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 10.—Seymour, U.S., 15,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 10.—Alliance, 5,500, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 10.—Eidsvold, U.S., 18,000, Booth Fisheries Company.

Sept. 10.—Shamrock, U.S., 35,000, Atlin Fisheries Limited.

Sept. 10.—Uranus, U.S., 9,000, Atlin Fisheries Limited.

Sept. 10.—Tuladi, 15,000, Atlin Fisheries Limited.

Sept. 11.—Exhibit, U.S., 7,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 11.—Jessie, 12,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 11.—Director, U.S., 10,000, Atlin Fisheries Limited.

Sept. 11.—Alvilda, U.S., 13,000, Atlin Fisheries Limited.

Sept. 13.—Rosario, U.S., 7,000, Atlin Fisheries Limited.

Sept. 13.—Avance, U.S., 12,000, Atlin Fisheries Limited.

Sept. 13.—Geo. E. Foster, 25,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 14.—Petrel, U.S., 7,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 14.—Grayling, U.S., 7,000, The Canadian Fish & Cold Storage Co., Ltd.

Sept. 15.—Alten, U.S., 50,000, The Canadian Fish & Cold Storage Co., Ltd.

Sept. 15.—Vesta, U.S., 16,000, Pacific Fisheries Limited.

Sept. 15.—Lillian M., 6,000, Atlin Fisheries Limited.

Sept. 16.—Amunsden, U.S., 10,000, Booth Fisheries Company.

Sept. 16.—Nornen, 6,000, Atlin Fisheries Limited.

Sept. 17.—Aurora, U.S., 10,000, Booth Fisheries Company.

Sept. 17.—Mayflower, U.S., 9,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 17.—Liefe, U.S., 3,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 17.—Flamingo, U.S., 6,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 17.—Alameda, U.S., 9,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 17.—Chief Skugaid, 40,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 17.—Rose Spit, 10,000, Atlin Fisheries Limited.

Sept. 17.—Doreen, Atlin Fisheries Limited.

Sept. 17.—Gilford, 7,000, Atlin Fisheries Limited.

Sept. 17.—Gilford, 7,000, Atlin Fisheries Limited.

Sept. 17.—Spencer, 7,000, Atlin Fisheries Limited.

Sept. 19.—Zorra, 5,000, Atlin Fisheries Limited.

Sept. 19. — Stranger, U.S., 6,000, Atlin Fisheries Limited.

Sept. 19.—Todd, U.S., 9,000, Atlin Fisheries Limited.

Sept. 19.—Chief Zibassa, 15,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 19.—Liberty, U.S., 35,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 20.—Andrew Kelly, 50,000, The Canadian Fish & Cold Storage Ltd.

Sept. 20.—Lincoln, U.S., 10,000, Booth Fisheries Company.

Sept. 21.—Magnolia, U.S., 10,000, Booth Fisheries Company.

Sept. 22.—Annie, U.S., 8,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 22.—Grier Starrett, 14,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 23.—Pacific, U.S., 35,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 23.—James Carruthers, 40,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 23.—Thelma, U.S., 12,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 23.—Thelma, U.S., 12,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 23.—Exhibit, U.S., 13,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 23.—Advance, U.S., 14,000, Booth Fisheries Company.

Sept. 23.—Daisy, U.S., 10,000, Booth Fisheries Company.

Sept. 25.—Shamrock, U.S., 34,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 25.—Rolfe, U.S., 9,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 25.—Pharaon, 6,000, The Canadian Fish & Cold Storage Co. Ltd.

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Sept. 25.—Alliance, 6,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 25.—Tuladi, 8,000, Atlin Fisheries Limited.

Sept. 25.—Corona, U.S., 22,000, Booth Fisheries Company.

Sept. 26.—Borealis, 20,000, Atlin Fisheries Limited.

Sept. 26.—Director, U.S., 5,000, Atlin Fisheries Limited.

Sept. 26.—Director, U.S., 5,000, Atlin Fisheries Limited.

Sept. 27.—Elfin, U.S., 6,000, Atlin Fisheries Limited.

Sept. 27.—Alvilda, U.S., 13,000, Atlin Fisheries Limited.

Sept. 28.—Treo, U.S., 5,000, Booth Fisheries Company.

Sept. 28.—Dophin, U.S., 18,000, Booth Fisheries Company.

Sept. 28.—Star, U.S., 18,000, Atlin Fisheries Limited.

Sept. 28.—Volunteer, U.S., 10,000, Atlin Fisheries Limited.

Sept. 29.—Dick, U.S., 17,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 30.—Alaska, U.S., 80,000, Atlin Fisheries Limited.

Sept. 30.—Alfa S., U.S., 15,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 30.—Jim Ham, U.S., 12,000, The Canadian Fish & Cold Storage Co. Ltd.

Sept. 30.—Geo. E. Foster, 25,000, The Canadian Fish & Cold Storage Co. Ltd.

Note: All vessels not specified "US" are of Canadian Registery.

At Ketchikan, Alaska:

Sept. 1.—J. P. Todd 11, 15,000, New England Fish Company.

Sept. 1.—Roald Amunsden, 10,000, New England Fish Company.

Sept. 1.—North Cape, 5,000, New England Fish Company.

Sept. 1.—Stranger, 10,000, New England Fish Company.

Sept. 2.—Holdal, 10,000, New England Fish Company.

Sept. 5.—Bryan, 5,000, New England Fish Company.

Sept. 6.—Knickerbocker, 60,000, New England Fish Company.

Sept. 6.—Lincoln, 5,000, New England Fish Company.

Sept. 6.—Cora, 5,000, New England Fish Company.

Sept. 7.—Westfjord, 25,000, New England Fish Company.

Sept. 8.—Prospector, 80,000, New England Fish Company.

Sept. 8.—Rapier, 10,000, New England Fish Company.

Sept. 9.—Yukon, ,000, New England Fish Company.

Sept. 9.—Eureka, 5,000, New England Fish Company.

Sept. 11.—New England, 120,000, New England Fish Company.

Sept. 18.—Northcape, 5,000, New England Fish Company.

Sept. 20.—Eureka, 5,000, New England Fish Company.

Sept. 21.—Norden, 5,000, New England Fish Company.

GERMAN FISHERIES AFTER THE WAR.

generally the use of .fish. It is believed they have become accustomed to fish, and will be reluctant to give it up. Hopes are expressed that the Government will buttress up the fishing industry by bounties and loans to a far greater extent than hitherto — it is not suggested where the money will come from. The Government, however, may do one thing that is asked. It may establish a department of fisheries or a central administration as in other countries, which Germany has hitherto lacked. It is curious that in a country which prides itself on its ability in organization the fisheries should be left in the charge of a variety of authorities, sometimes antagonistic to one another. — The Fish Trades Gazette.

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(PUBLISHERS OF THE CANADIAN FISHERMAN)

Official Organ of the Canadian Fisheries Association

CANADIAN FISHERMAN

THE COMMERCIAL FISHERIES MAGAZINE OF CANADA AND NEWFOUNDLAND

Vol. III. MONTREAL, DECEMBER, 1916 No. 12

Drawn by F. W. Wallace.

PICKING UP THE DORIES.

Look for the
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Quality

MARITIME FISH CORPORATION
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CANADA CANADA
LIMITED

It can be seen
on all
High-Grade
Atlantic Sea
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LIMITED

ONTARIO
Department of Game and Fisheries

The attention of the fishermen is invited to the following provisions of the Dominion Special Fishery Regulations for the Province of Ontario and of the Ontario Game and Fisheries Act.

Fishing by means other than angling or trolling except under the authority of a lease, license or permit issued by this Department is prohibited.

Non-residents, that is persons domiciled in the Province for a period of less than six months, are not allowed to angle or troll without an angler's permit.

No one shall fish for or take large mouthed or small mouthed black bass, maskinonge, speckled trout, brown trout, rainbow or other Pacific trouts, otherwise than by angling.

No one shall fish for large mouthed or small mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

The sale or export of small or large mouthed black bass, of maskinonge and of speckled trout, brown trout, rainbow or other Pacific trouts is prohibited.

The sale or export of pickerel (dore) less than fifteen inches in length, measuring from the point of the nose to the centre of the posterior margin of the tail, is prohibited.

The taking of whitefish or salmon trout less than two pounds in weight is prohibited.

The use of trap nets is prohibited.

Fishing with gill nets in Lake Erie, from December 15th to March 15th, both days inclusive, is prohibited.

No one shall set or place nets other than hoop nets, dip or roll nets, in any river or creek or within five hundred yards of the entrance thereto. This prohibition shall not apply to carp fishing.

CLOSE SEASONS (Commercial Fish.)

Pickerel.—In water other than the Great Lakes, Georgian Bay, North Channel and connecting waters—April 15th to June 15th.

Whitefish and Salmon Trout.—In waters where commercial fishing with gill nets is not permitted —October 5th to November 5th, both days inclusive.

In the Bay of Quinte—November 1st to November 30th, both days inclusive.

In waters other than the Bay of Quinte, Great Lakes, Georgian Bay, North Channel and connecting waters, where commercial fishing with gill nets is permitted—October 5th to November 30th, both days inclusive.

LIMIT OF CATCH (Commercial Fish.)
(By Angling or Trolling.)

Pickerel.—Twelve per day.

Salmon Trout.—Big and Little Rideau Lakes, three per day. Other waters except Great Lakes, Georgian Bay, North Channel and connecting waters, five per day.

A. SHERIFF,
Deputy Minister of Game and Fisheries.
Department of Game and Fisheries.
Toronto, Feb. 1st., 1916.

Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license.

To the Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to—

The Minister of Colonization, Mines and Fisheries
Of the Province of Quebec

DEPARTMENT OF THE NAVAL SERVICE

FISHERIES BRANCH

Lobster Fishery Fishing Seasons in Force on June 1st, 1916

Number of District	Limits	Fishing Season	Size
1	Charlotte County, N.B.	Nov. 15 to June 15	10½ inches
2	St. John County, N.B	Nov. 15 to June 1st	9 inches
3	Albert County and Portion of Cumberland County, N.B., and King's and Annapolis Counties, N.S.	Jan. 15 to June 29	No Size Limit
4	Digby County	Jan. 6 to June 15	No Size Limit
5	Yarmouth, Shelbourne, Queen's, Lunenburg, and that portion of Halifax county west of a line running S.S.E. from St. George's Island, Halifax Harbour, and Coinciding with Fairway buoys	Dec. 15 to May 30	No Size Limit
6	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including Chedabucto and St. Peters Bays and the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite	April 1 to June 20	No Size Limit
7	Remaining portion of Cape Breton Island, including St. Paul's Island, not covered by District No. 6	April 15 to July 15	No Size Limit
8	The Magdalen Islands, including Bird Rocks and Bryon Island	May 1 to July 20	No Size Limit
9	Waters of Northumberland Strait, between a line on the N.W. drawn from Chockfish River, N.B., to West Point., P.E.I., and a line on the S.E. drawn from the west side of River Philip channel at the mouth of the river, Nova Scotia, to the eastern entrance to Victoria Harbour, Queens County, Prince Edward Island	May 25 to Aug. 10	No Size Limit
10	On and along the portion of the coast or the waters thereof, of the Provinces of Nova Scotia, New Brunswick and Prince Edward Island, westwardly and northwardly, from the Lighthouse in Antigonish County, opposite Flat Point in Inverness County, Nova Scotia, to the northern boundary New Brunswick, including the coasts and waters thereof of all the islands adjacent to these portions of the coasts of the said Provinces as well as the coast and waters thereof of the Counties of Quebec south of River St. Lawrence, except those specified in No. 8	April 26 to June 25	No Size Limit
11	North of the Gulf and River St. Lawrence including Anticosti Island	May 20 to July 31	No Size Limit

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of the Naval Service is required.

Cases of canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED
TO THE COMMERCIAL FISHERIES
OF CANADA AND NEWFOUNDLAND
THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE
- OF FISH PRODUCTS - -

F. WILLIAM WALLACE
EDITOR

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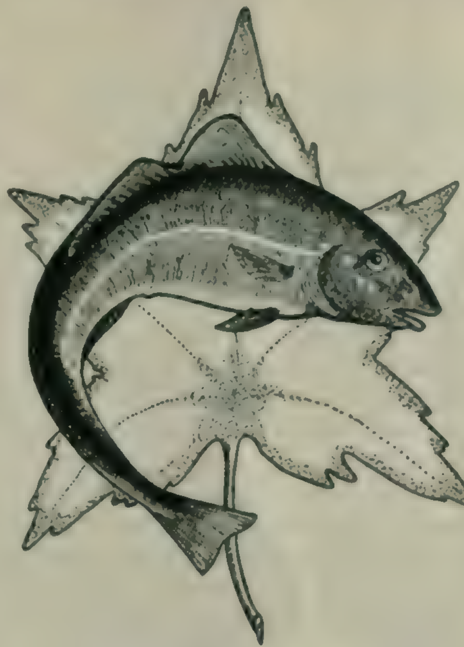

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ADVERTISING RATES ON APPLICATION

Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. III. MONTREAL, DECEMBER, 1916 No. 12

December Fish Day Calendar

1916			DEC.			1916
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
					$\boxed{1}$	2
3	4	$\boxed{5}$	6	7	$\boxed{8}$	9
10	11	$\boxed{12}$	13	14	$\boxed{15}$	16
17	18	$\boxed{19}$	$\boxed{20}$	$\boxed{21}$	$\boxed{22}$	$\boxed{23}$
24	25	$\boxed{26}$	27	28	$\boxed{29}$	30
31						

Every Tuesday is a Fish Day Now!

ANOTHER RAISE IN EXPRESS RATES SQUELCHED.

Last September, the Dominion Express Company issued Supplement No. 3 to Special Tariff 57, C.R.C. 4434 raising the rates on lake fish from Winnipeg, Eagle River, Selkirk and other districts on Lakes west of Westfort, Ont.

The Canadian Fisheries Association found the rates exorbitant, and through its Transportation Committee immediately protested to the Board of Railway Commissioners to have the Supplement cancelled. Our Committee laid the evidence and their reasons before the Board at Ottawa early in November, with the result that the Railway Commissioners disallowed the Supplement and the rates now remain as before.

Credit for this work must be given to Mr. W. Douglas, Winnipeg, Mr. W. R. Spooner, Montreal, Mr. A. H. Brittain, Montreal, (Chairman)—composing the Canadian Fisheries Association's Transportation Committee.

A NEW USE FOR THE FISHING BOUNTY.

Under the provisions of an Act "to encourage the development of the Sea Fisheries and the building of fishing vessels" the sum of $160,000 is paid annually to the crews and owners of fishing boats and vessels who have engaged steadily in sea fishing for a period not less than three months in the year.

The bounty is distributed yearly, and as a rule amounts to $1 per ton register to owners of fishing vessels: $5.90 to vessel fishermen; $1 to owners of fishing boats, and $3.45 to boat fishermen.

It has long been our opinion that this bounty is a useless gift. It has no effect in making the fishermen continue in their vocation for at least three months, and it does not encourage the building of fishing vessels. Distributed as it is, among such a number of applicants, the sums are too small to be of any benefit.

The dollar per registered ton paid on fishing vessels may help to pay the insurance and will amount to something among the owners of the Lunenburg fleet, but it is not doing the industry any good. There would be just as many vessels and fishermen fishing today if there never was such a thing as a bounty. One dollar does not help a boat owner very much, nor does $3.45 help the boat fisherman. It won't buy him a decent pair of rubber boots.

What our fishing industry really needs is more motor and auxiliary fishing craft, and we would suggest that our Government do the same as what the Norwegians, Swedes, and British have been doing in allowing fishermen certain sums of money in order that they may install motors in their boats. There are hundreds of fishermen around our coasts who have boats but cannot afford to buy engines for them. There are also numerous small schooners which could be made twice as effective if they had auxiliary engines installed. But engines are a big expense to a poor man and a great many fishermen owning motor fishing boats are in debt to the agents of motor engine companies and pay high interest on their notes. Others, rather than be indebted, allow someone to install an engine in their boat, and the engine owner takes a proportion of the catch for the hire of same.

It seems to us that a scheme could be put into operation whereby the Government would undertake to finance fishermen in the purchase of engines out of the bounty money. This might be done by paying one third of the cost of an engine—the fisherman paying the other two thirds himself. Another way would be to advance the money for the purchase of a motor—the fisherman to repay within a certain time and without interest.

In order to prevent misappropriation of the money to other uses and prevent men from applying for engines and using their boats for coasting and freighting, the Fishery Officers of each district will keep track of the boats thus subsidized and see that the owners keep their contract to engage in fishing for a certain period every year. Each fisherman owning a subsidized engine would have a book similar to a Seaman's Discharge Book and have entries made therein by the local Fishery Officer as to the periods he has been engaged in fishing; the amount of his catches and the payments on his engine. Any transfers by sale or otherwise would be marked in the book and also in the Fishery Officer's register.

There may be other schemes better than these, but we are opening the ball for others to suggest their ideas. There is no doubt whatever that the Fishing Bounty as at present administered is futile in its object and could be better applied to helping the fishermen in other ways.

EXIT—SIR SAM HUGHES.

Whatever politicians and military men may think regarding the dismissal of Lieut General Sir Sam Hughes, we, in the fish business, unbiassed by politics or military ethics, cannot but feel warmly towards him for the work he has done in promoting our fisheries.

It is rather a queer step from military duties to encouraging the fisheries of Canada, but Sir Sam found time to do so. When Mr. Hugh A. Green came to the Ex-Minister of Militia with his scheme of supplying fish to the soldiers in camp here and overseas, Sir Sam could very well have chased him away from his busy presence. One could imagine the General lending a sympathetic ear to a scheme for annihilating the enemy, a new "tank" or high explosive, but fish!

However, his practical mind, ever alive to matters Canadian, was quick to grasp the advantages of fish in the soldiers' rations and the consequent benefit to the Industry, with the result that Mr. Green was given a hearing, a trial, and an appointment as Director of Fish Supplies. As we all know, the whole thing is a great success and has led to a huge trade.

Sir Sam may have had his faults—who hasn't?—and in the limelight of these strenuous times they have been greatly magnified, but Sir Sam is Canada's greatest advertiser. Canada for the Canadians is his motto and he has faith in his country and its future. Canada's Army and Canada's Fish are the two big things he has brought into startling prominence. We thank him for both.

OVERSEAS EXPORT OF CANADIAN FISH.

Major Hugh A. Green, Director of Fish Supplies to the Canadian Forces, and a Director of the Canadian Fisheries Association, has returned to Canada as an emissary of the British Board of Trade with a commission to organize supplies of Canadian fresh-frozen, smoked, cured and canned fish for the Imperial Army.

The amount required of all kinds of Canadian fish, sea and lake varieties, will run to ten million pounds weekly. The magnitude of this order makes one gasp, and Major Green has a big job ahead of him in stimulating the production of such a vast amount. A splendid feature of the order, and one which will appeal to the fishermen, is the fact that many varieties not usually marketed fresh in Canada and regarded as low grade fish, will be taken. Fresh-frozen black cod from the Pacific, cusk, pollock and hake from the Atlantic, and several lake varieties are wanted in addition to the regular lines of halibut, salmon, cod, haddock and whitefish.

A sample order of over a million pounds has already been shipped across and Major Green is now visiting the various fishing centres to organize means of increasing production.

MAJOR GREEN'S MISSION.

Undoubtedly the biggest topic of the month in the fishing industry of Canada is the visit of Major Hugh Green and his commission to organize production to fill the huge fish orders of the Imperial Government. Every producer in the country will have a chance to fill the order, and every man who can haul net, trawl or handline will benefit—not only in the ready market offered, but in the chance to dispose of varieties which otherwise were thrown away or sold at shack prices.

Of course, it will be said by many that this export trade will raise the price of fish in Canada and fall heavily on the consumer. In pre-war days, the consumers in Canada regarded fish as of little account and didn't care whether they ate it or not. Prices were low—they had to be or there would be no sale—and the fishermen, who work hard enough for their money, received scanty remuneration for the fruits of their toil. The best part of the catches of Canadian fishermen were shipped out of the country to the United States, the Continent, West Indies and South America. They had to be, or fishermen would have had to knock off for want of a market.

Everything has gone up in price since the war—fish least of all, but when fish did go up, there was a scream from various High Cost of Living experts. Certain varieties of fish are high nowadays, but many others are practically as cheap as ever. The consumers in Canada have always had epicurean tastes in fish foods. Nothing but halibut, salmon, cod and haddock, and some lake fish, could be marketed. Other equally fine fish—hake, cusk, pollock, black cod, skate, herring, whitefish and even dog-fish—wouldn't be looked at in the home market. In Great Britain and the Continent the latter varieties have been staples for many years. Canada is only now reaching the stage where such fish can be marketed fresh and it is only through the war and the extensive publicity work carried on by the Fisheries Department and the Canadian Fisheries Association in educating the consumer.

However, Major Green's work in stimulating a demand for Canadian fish overseas will ,at the same time, increase our means of production. More fishermen will go into the industry and more concerns will open up to buy their fares. When that happens, there will be plenty of fish coming in and the needs of the home market will be taken care of. There is little call for anxiety. The long established fish producers are not going to kill their home trade by shipping all their produce overseas. The home trade is every bit as important as the export, and those in the business are not foolish enough to throw it away.

These great overseas orders caught our producers unready. Fishermen were scarce; vessels were freighting, and steam trawlers could not be procured for any money. Shipyards everywhere are full with orders and fishing craft cannot be delivered for a year ahead. Extensive organization is necessary, and during that organization, certain lines of fish will be higher in price than usual.

Some people blame Major Green for stimulating this demand. Let us state right here, as the journal of the Fishing Industry of Canada, that our fisheries have benefitted more of late through these orders than ever before. The "orphan child" of Canada's basic industries is now coming into its own. The fishermen are getting better prices and are able to market fish they used to throw away or sell for what they could get: the investors in fishing plants and vessels are beginning to realize some profit on their investment and the industry is beginning to be less of a "hand to mouth" business. Canada's fish are being extensively advertised abroad and the present demand will continue for the duration of the war and for a long period afterwards. And when Europe regains normal conditions many varieties of Canadian fish will remain on the British market in place of the ever decreasing stocks of meat.

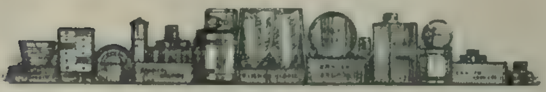
With at least two or three year's market ahead of us overseas, we would be foolish to pass it up for a home market only. The consumption of fish among eight millions of people will never become market enough for our immense fishery resources or give adequate and paying employment for those engaged in the fisheries of Canada. The Guelph Herald foolishly suggests that the Dominion Government prohibit the export of fish for a time as it might have an important bearing upon the high cost of living. Would it? If it did, over one hundred thousand persons engaged in the fisheries of this country would hardly make a living with such a small market to cater to, and if our producers had to content themselves with such a market it is a safe bet that they would see that they got enough profit out of it to compensate them for the loss of overseas business.

Summing the whole thing up, the industry owes a great deal to Major Green and all engaged in exploiting Canada's fisheries are behind him. His work in England has brought Canada's fish into the limelight and it has been hard work, very hard work. Green is Canada's master fish salesman and as such, he must be encouraged and not bound by red tape or side-tracked by political shuffling. We are out to win this war: we are ably assisting the mother country in her time of stress; our fishermen are taking the place of the British fishermen in the Royal Navy, and our fish is keeping down the cost of feeding an enormous army. Major Green is stimulating an industry which needed it badly: he is bringing money into the country and into the hands of men that never got very much in return for the most arduous toil.

Major Green is the Fishing Industry's representative on the firing line today, and the best wishes of Canada's fishermen go with him.

FISH FROM LAKE WINNEPEGOSIS WANTED.

An United States firm wishes to get in touch with fish shippers on Lake Winnepegosis. Winter frozen fish wanted. Apply "Lake Fish", c|o CANADIAN FISHERMAN, 600 Read Bldg., Montreal.



Start the New Year of 1917 with a resolution to assist in the development of our great fisheries. Join the Canadian Fisheries Association and identify yourself with an organization which is safeguarding the interests of the Industry and promoting its developments.

The year 1916 saw our Fisheries at their greatest value. The coming year will see it greater still. Opportunities are opening up for our Fisheries, such as never came before. These have to be taken at the flood and the Industry steered carefully past the many shoals and dangers which appear as we progress. The Canadian Fisheries Association was formed for this purpose. We have accomplished many valuable things in the past, but the future will bring many matters of still greater importance to be considered and acted upon. Join the Association now and do your bit to help.

D. J. Byrne.

President.

PISCATORIAL PARAGRAPHS.

When Major Hugh Green visited the little Scotch village of Thornhill last summer, he took two fine B. C. salmon in a frozen state with him. Procuring rods and gaffs, he and a friend carried the fish down to the River Nith and staged a fake capture. The friend photographed the spurious landing of the salmon and a curious crowd of natives gathered around and gazed on, open mouthed, at the sight of the huge salmon being taken out of a river that boasted but few fish of any kind. The trophies were exhibited in the local hotel, and since that time, the proprietor has done a roaring business—anglers coming to Thornhill from all parts of the country and taxing the accomodation of the hostelry so that they slept on the tables. The photographs were published in the London Daily Mirror and other papers and was the means of putting Thornhill on the map as an angler's paradise (?).

Mr. Chas. H. Earle, formerly with the Maritime Fish Corporation, Limited, and well known to the trade from Coast to Coast, has gone into business for himself in Charlottetown, P. E. I., under the name of the Earle Fisheries Company. Mr. Earle was a gifted singer and a remarkable entertainer, and as such, he was exceedingly popular where-ever he went. After an absence of ten years, he, like the Prodigal Son, has returned to his home town and has already commenced a thriving business dealing in Island fishery and farm products, chickens, geese, etc. When we knew him, "Charley" was a pretty good judge of "chickens". We have no doubt that his long experience in both the fish and chicken trade will build him a first class business. Here's to him!

Phoenix-like, the Canadian Fishing Company, Ltd., of Vancouver, has arisen again from the ashes. Since the plant was totally wiped out by fire last Spring, the Company set to work rebuilding, and the whole establishment, fish packing warehouse, cold storage and ice-making plant, fish curing plant, wharves, etc., have all been completed and improved as to size, facilities and other conveniences. The credit for the reconstruction must be given to their energetic President, Mr. A. L. Hager, who shouldered the double burden of keeping their large business going in temporary quarters, and superintending the reconstruction of the new premises.

The large overseas orders for fish means busy times for Canadian producers. Almost all are now filling contracts or have them to fill. The unprecedented demand has "caught us aback" as it were, and fishing concerns are hard put to it to find experienced fishermen and vessels these days.

Don't forget the Tuesday Fish Day! Most dealers are featuring it, but others are liable to 'forget it. Keep the day before your customers, wholesale and retail. Supplies may be scarce and high at times, but don't slack off. Things will adjust themselves soon. We are living in unusual times and the unusual is always happening. People are eating more fish in Canada than they ever did. Keep the fish food before the public and don't forget that Tuesday and Friday are special Fish Days.

The value of Canada's Fisheries for the present year will come to forty million dollars if the existing state of affairs continue.

ASSOCIATION MEMOS.

Remember Tuesday Fish Day! Keep it before the public.

Don't forget to send in your nominations for President and Officers of the Association for the year 1917.

The Association's silver button-hole badge can be procured from the Secretary on receipt of the cost—fifty-two cents.

The Association has done more to popularize fish and develop the fishing industry of Canada than any other thing.

Any firm or individual in the fishing industry who is not in the C. F. A. is a clog on the wheels of progress. If you are not interested in the development of your industry, you are not interested in the development of your business.

The day of "splendid isolation" is past. Great Britain could not have existed in this war by her own efforts and resources. Her colonies have been a tower of strength to her in contributing men, money, munitions and food-stuffs—not omitting fish. In the same manner, no firm in the fishing industry can remain isolated and keep away from the Association and its work.

U. S. NATIONAL FISH DAY, NOVEMBER 24TH.

For the first time the United States celebrates one of its greatest products, the fish. "From Maine to California," to use a political phrase, seafoods are being consumed today, not only because it is Friday, but also because it is National Fish Day, when the country does honor to its fisheries.

With the possible exception of Japan, the United States at the present time is the greatest fishing nation on earth; yet its people as a whole probably know less about fish and how to cook them than the populace of many, much smaller, nations. Yet Fish is more than a king today. Seafoods offer a route of escape from prohibitive prices, and anything which does that in these days, is indeed worthy of a kingly crown.

Steam trawler "Surge" brought 6000-lbs. of dogfish into Boston recently.

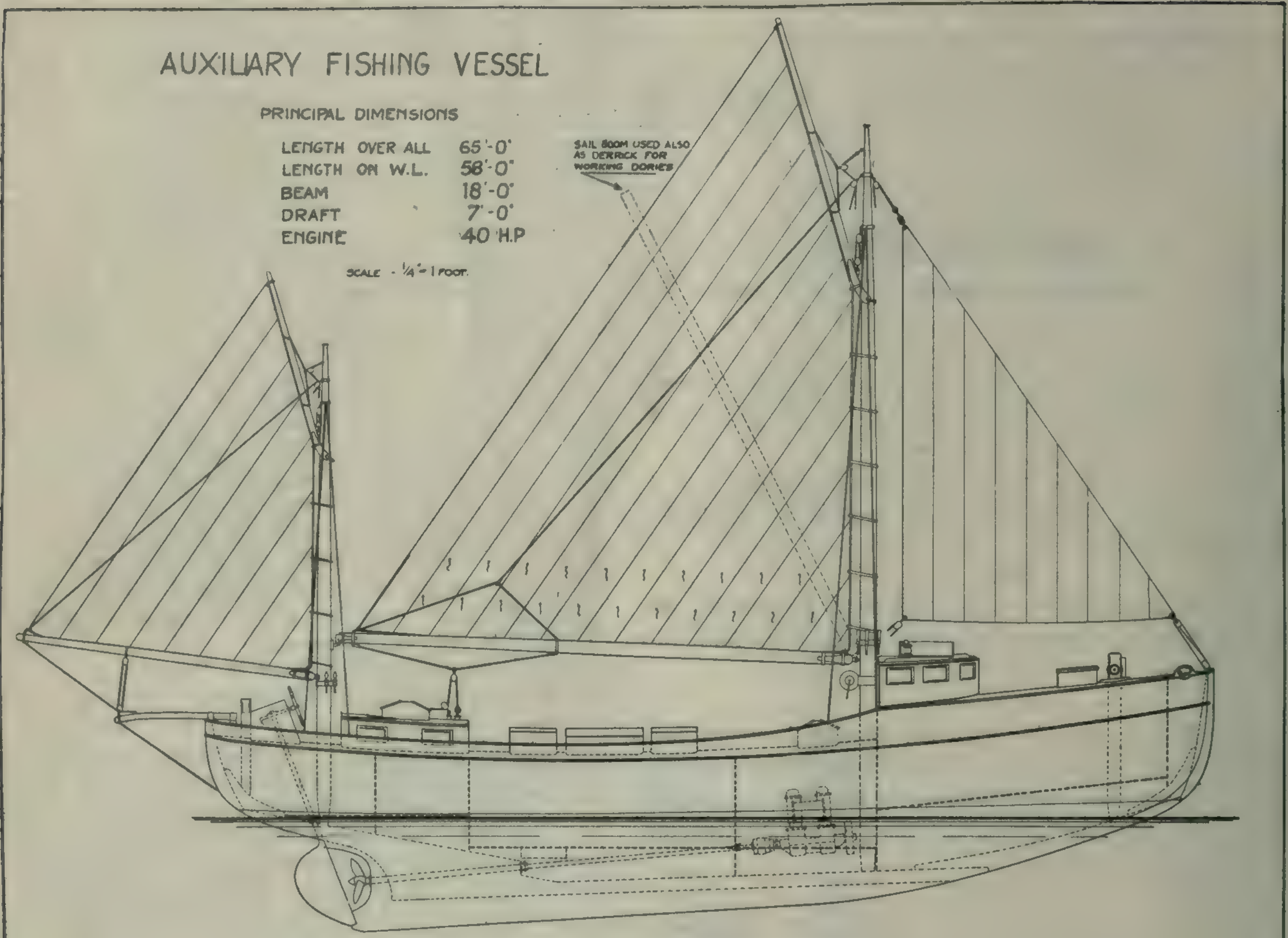
SEATTLE SALMON MARKET.

SEATTLE, Wash, Nov. 24.—Nothing like the present situation was ever known and may never be duplicated again. By that is meant no such prices have ever been seen in this market for canned salmon and there seems to be no end to the advances likely to be paid before the supply is completely cleaned up. It seems almost out of all reason, an impossibility that pink salmon should be selling at $1.20 to $1.25, and yet that is what sellers are able to obtain here today. Chums at $1.05 or even better is equally strange and unnatural. Medium reds are selling at $1.55 to $1.60, prices that are high even for reds. Red Alaska and sockeye salmon are now almost absolutely impossible to obtain at any price, the former being quoted at $1.85.

The foreign demand keeps right up. Exporters are scouring the market all the time for everything they can possibly obtain. Domestic buyers have been and still are overshadowed by the representatives and activities of the foreign agents. By this is meant agents buying for the allied governments in Europe. Delivery is being made by rail, mostly to Atlantic Coast points. Inasmuch as railroads are unwilling to furnish cars to go of their own lines, there is great difficulty in getting needed rolling stock for Atlantic Coast or Gulf point deliveries. Still salmon shippers have fared better than some others. It is said that some influence seems to be at work that provides a fairly good stock of cars for salmon shipments.

A well-known broker here in Seattle said that the big call for salmon, in his opinion, has not yet commenced. "By that I mean," said he, "that we will have a call for salmon for domestic use next spring that we will, of course, be unable to meet in any manner. The call so far has been very largely for export. This has been a real demand and the fish are rapidly going out of the country and into consumption: in other words, being used up. The strictly domestic buyers never really get into the market until after the first of the year, for they want the packers to hold the stock and pay carrying charges as long as possible. I have reason to believe from letters that I have received from some Eastern buyers that they believe back there in some sections that we are concealing a lot of salmon: in other words, that we have stampeded the market, and that there is still a considerable stock of fish left. This crowd is doomed to bitter disappointment, for the next supply of salmon that can be obtained in any quantities will be the next pack, and it will be July and August before this will be able to relieve the situation. Many Americans who have formerly used canned salmon, especially in the summer months, will have to go without next summer. Of this I am confident. I believe that there will be many grocery stores in the country that will be out of canned salmon and unable to buy more, before the new pack is available. This will be particularly true in the South, which heretofore has been a very heavy consumer of pink fish, a grade that has not been taken by European buyers in any quantities up to this season.

The fall salmon canning season is now about over. The run was pretty satisfactory, all things considered. Several Puget Sound canners have been able to fill all the cans they had prepared to fill early in the season, although the proportion of sockeyes was much less than expected. But with the exceptional high prices obtainable for the lower grades, they are coming out much better than had been expected. A few plants will endeavor to run for a while longer in an effort to get an added supply of fish.—The Canning Trade.



AUXILIARY FISHING VESSEL

PRINCIPAL DIMENSIONS

LENGTH OVER ALL	65'-0"
LENGTH ON W.L.	58'-0"
BEAM	18'-0"
DRAFT	7'-0"
ENGINE	40 H.P

SCALE - 1/4" = 1 FOOT.

New Type of Auxiliary Fishing Vessel for Canadian Industry

On the opposite page we reproduce a design of an auxiliary fishing vessel which has many excellent features to recommend its use in the fisheries of the Atlantic coast of Canada. The plans were made up by Mr. Walter Lambert, a well known naval designer of Montreal, and is the product of considerable study given to the present day type of fishing craft. Mr. Lambert is a member of the Canadian Fisheries Association and has had some opportunity to acquaint himself with the requirements of the fishing industry.

The vessel is designed primarily for fresh fishing—halibuting hakeing or shacking—on grounds not too far offshore. For winter haddocking voyages on Browns or Western Bank, a similar design of vessel could be used but the length should be between 100 to 125 feet overall and the power conseuently larger. Thé little craft designed for our pages is 65 feet overall with a waterline of 58 feet. She has a beam of 18 feet which gives plenty of deck room and stability, and a mean draft of 7 feet aft, enough to enable her to steer well when going to windward under sail or when hove-to.

The general hull design is a modification of the present day knockabout model common to Canadian sailing craft and some models in use in the European fisheries. There is a raised deck for'ard with a forecastle below containing the cook's galley and berths for ten men. The pilot house—used when under power—is built into the break of the fo'c'sle and in it are located steering gear and controls for the engine. The for'ard deck is clear of everything but the anchor gear. Admission to the fo'c'sle and engine room is through the wheel-house.

The main deck runs flush aft without a break. The main mast is stepped abaft the wheel-house and is equipped with mainsail and jib. The mainsail is loose-footed and can be cast adrift from the boom in a moment when lowered, and the boom used as a derrick for hoisting dories, fish, ice and supplies. The dories are nested amidships on top of the hatches and are chocked up so that the hatch covers can be opened even when the dories are nested.

Aft, the cabin trunk is built similar in manner to that in vogue aboard present day fishing craft, and the cabin is arranged to accomodate four men—the captain and mate—who would be spare hand and engineer—berthing in the forward part of the cabin and two fishermen under the run. The engine room is equipped with two berths also, so that the vessel could accomodate sixteen men altogether—a sufficient crew to man seven dories in double dory trawling.

In a little vessel of this type, the skipper could easily look after the engine himself if all the dories were out fishing. With the cook and himself aboard, it would not be difficult for one or the other to start the engine or steer as occasion required.

The engine is a semi-diesel crude oil engine developing 40 H.P. and capable of driving the vessel at 8 knots per hour in moderate weather on a fuel consumpt of 2¾ gallons per hour at a cost of approximately 6 to 8c per gallon. The sail plan is a yawl rig, and when fishing or jogging to dories, the vessel can be handled under jigger and jib with the mainsail furled. There is an ordinary screw steering gear aft for steering under sail. When under power; the vessel would be handled from the wheel-house for'ard.

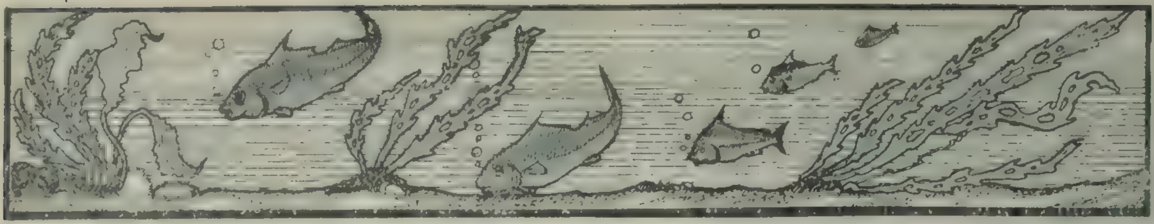
Vessels similar to this are used in halibut fishing on the Pacific coast and it is possible that the design we reproduce may have features which will recommend it to Pacific halibuters. As an able craft for Atlantic fishing, easily handled, inexpensive to operate, and carrying the maximum amount of dories for the minimum of size and expense, we strongly recommend it to fishermen intending to build for fresh fishing. With the auxiliary engine, this little craft will make quick trips and should be a paying proposition. Any enquiries for further particulars and detailed plans will be answered through the CANADIAN FISHERMAN office.

FISH SAUSAGE AND FISH BUTTER.

The Latest German Industries.

The "Berliner Tageblatt" states that shellfish and cod have risen to famine prices. These foods of the people have now become luxuries. Shellfish in Berlin at present fetches Mk.2-2.37, cod Mk.1.75-2.20 per lb.; normal peace prices were Pf.40-50 and Pf.30-40 respectively.

The present scarcity of meat has given rise to a new industry, the manufacture of fish-meat, fish-sausage, and fish-butter. The makers of those wares buy up all the cod and shellfish they can get, and will pay any price. Their finished wares, which at first were cheap, have now risen to Mk.2.50 per lb. It is complained that this new industry interferes with the people's food by monopolising the fish supply.



The Imperial Fishing Co. of Canada, Limited

A new promotion for the catching of suckers with money to burn.

For the information of the Canadian Fishing Industry, we publish herewith the stock prospectus of the "Imperial Fishing Company, of Canada, Ltd.," — a new venture now being promoted in Canada by one, J. Rollo Middlemiss. Here's the bait designed to catch the fish, human and otherwise.

Imperial Fishing Company of Canada, Ltd., Capital $2,500,000. Shares $100 Each.

A device for catching of fish electrically held under Letters Patent, for the United States of America, and for its proper and profitable exploitation a company is now in process of organization.

The method so devised, tested and tried out during a long period of experimentation, by which its practicability was conclusively demonstrated, and by which the table is supplied with food, the market with oils and glue, and the earth with fertilizers, contemplates the construction and operation of a factory on waters of the sea, lakes, streams inhabited by fish, and by the simplest most effective and most powerful of methods and economical devices, putting the catch of fish into all forms and products known to modern commerce.

To construct entirely of steel, fish entraping boats, non-sinkable and absolutely impervious to flame; five decks in height, three hundred and ten feet long (310) by fifty-one (51) feet wide and twenty (20) feet deep, with an increasing width to the upper deck, until eighty (80) feet is attained.

This structure equipped with two (2) fishing traps, automatically lowered into water, and raised therefrom, by powerful cables, and the catch distributed from a central station, as the various departments and the uses to which the fish shall be put may require.

Those fish entrapping boats, thus constructed entirely of steel, non sinkable, and impervious to flame, will be five floors or decks in height, sufficient to provide ample space for the various departments of this enterprise.

"**Trying Department**" for the production of oil and glue.

"**Smoking and Salting Department**" for curing fish.

"**Barreling and Boxing Department**" for packing and shipping.

"**Canning and Tin Box Department**" for salmon, etc., etc.

"**Fertilizing Department**" to utilize all waste in the production of a very valuable fertilizer for agricultural purposes, because of the large amount of phosporous contained in the fertilizer produced from this source.

Reproduction of Fish.

As a very large quantity of fish will be captured daily by those electrical traps, and utilized by the company in the manner above indicated, it may be supposed that the fishing grounds will become impoverished. This possibility has been provided for by the company, in its intention to use the roe, or fish eggs, taken from the female fish, and placed in the company's own hatcheries, to be established in suitable locations, and that will produce over one hundredfold more fish for the waters than the entire quantity captured by these fish entrapping devices, and in this particular a great economic improvement upon the present wasteful system of disposing of the roe of fishes.

Financial Results.

All machinery and devices are structural, and means of equipment are in the market, and can be obtained at any time.

The cost of a boat of the dimensions herein described, complete in its outfit of traps, and necessary machinery, is estimated to amount to $500,000, and the two necessary fast tenders to accompany the fishing steamer $400,000 in all $900,000, and it will soon earn this entire cost from the products it can deliver.

The by-products, namely: The fertilizer, glue, oils, etc., will enable the company to pay 40 p.c. upon the entire capitalization.

In addition to the canned, boxed, barrelled, bundled, smoked and salted fish for the stores, a fishing entrapping steamer of the dimensions herein described, will have a capacity of providing over 250 tons of fresh fish daily, cleaned and decapitated, for household use, all ready for cooking, at 6 cents (6) per pound, being less than one-fourth of the cost of any fish to the consumers to-day.

Although the by-products will do more than defray the entire cost of operating these steamships, it is deemed conservative to allow one cent of the price obtained from the consumers, to cover any contingent cost; this leaves a net profit from fresh fish, sold and delivered for table use alone of five cents (5) a pound, equivalent to $100 a ton, amounting to $25,500 daily, on the sale and delivery of 250 tons of fresh fish prepared for cooking.

To this must be added not less than 25 p.c. arising from the sale of smoked, dried, canned, boxed, and barrelled fish, glue, fish oils, porpoise and seal skins and fertilizers, giving a total of $31,250 daily, and supposing these boats are only in active service 200 days annually (after making a liberal allowance for time in going to the fishing grounds, repairs, etc.), we have the surprising result of $6,250.000 returns per annum.

It is the intention of the company to operate five of these boats, all on different grounds, to be paid for from the first year's earnings of the first steamer employed without in any way interfering with or decreasing the semi-annual dividends in the financial statement of this prospectus

With five steamships in full operation on different fishing grounds, the financial result will justify the most sanguine expectations.

Fishing Grounds.

For herring, mackerel, codfish, seal and porpoise, off the coast of Newfoundland.

For Salmon, black cod and ling, off the mouth of the Columbia River, and the Coast of Alaska, the latter for black cod especially.

The halibut and salmon off the Coast of British Columbia.

For smelts, sardines, and green turtle, off the Coast of Bahia, (Mexico), California and Magdalena Bay.

These districts cover the finest fishing grounds in the world, where excellent fish food can be obtained in unlimited quantity because of the electrically lighted fishing traps that comprise the main device ensuring rapid and absolute success of their new fishing steamships.

In conclusion, it is needless to say that this whole undertaking has been devised for the humanitarian purpose of reducing the cost of living to working people and others, over fifty per cent., not only enabling the wage-earner to live within his means, but also to provide a snug sum for his maintenance in disability or old age, and on that account alone should commend itself to all right thinking minds.

The whole respectfully submitted.

J. ROLLO MIDDLEMISS, AGT.,
For promotion.

Exhibit of Daily Returns.

200 barrels herring cleaned and stripped (200 lbs. at 6c). at $12.00	2,400.00
250 tons fresh fish cleaned for market at $120	30.000.00
2 tons fish glue at $1.00 per pound at $2,000	4,000.00
20 barrels seal oil at $12	240.00
20 barrels other oils at $12	240.00
125 tons fertilizer for lands at $30	3,750.00
250 seal skins and purpoise hides at $2	500.00
Daily gross returns	$41,130.00
Annual returns based upon 200 days' work	$8,226.000.00
No statistics are now given on smoked, dried, and bundled, boxed, barrelled, and canned fish as returns from these products will supply any deficiency in the above estimates or any of them. From the total results 25 p.c. is deducted to cover all operating expenses of steamers, tenders, and factories, amounting to	2,056,500.00
Annual net returns	$6.169.500.00

Apportioned as Follows.

Cost of fitting steamship complete	500,000	
Cost of two steam tenders	400,000	
Cost of 100 acres of land Cape Breton	2,500	
Cost of official staff and distribution shops in New York, Boston, Philadelphia and Montreal	200,000	
Allowance for additional steamers and steam tenders	1,800,000	
Dividend 20 p.c. semi-annually	1,000.000	
Contingent fund	567,000	
Reserve fund	$1,500,000	$6,169,500.00

Respectfully submitted,
J. ROLLO MIDDLEMISS, Agt.,
For Promoting Company."

There now! What do you think of that? A nice theoretical scheme isn't it? First of all we have a steel ship 310 feet long and "five decks in height—the upper deck eighty feet wide" — spreading out, we presume from an original lower deck beam of 51 feet. We can't imagine this craft, but think she must be constructed along the lines of the old sailor's myth of the ship that was "all decks and no bottom".

The method of capture is by electricity—presumably the old scheme of enticing the fish into traps by means of lights. This scheme is published elsewhere in this issue. The promoter talks glibly of catching 250 tons of marketable fish daily — cod, herring, mackerel, halibut, salmon, etc., — as if any spot on the fishing banks swarmed with these species. They'll find many blank days, we're afraid, as all species are more or less migratory and sporadic. To catch 250 tons of marketable fish daily they would have to entrap another 250 tons of worthless species and a catch of 500 tons per day is a pretty big order. To sort the fish out and derss them for market would require a very large number of men —more than a ship of such limited dimensions could accommodate when smokers, salters, canners, coopers, engineers, firemen, stewards, cooks, navigating staff, etc,. have to be carried as well.

The method of reproducing the fish may be dismissed as impracticable under such conditions. The price for the fresh fish to the consumer is stated as 6 cents per pound — "less than one fourth of the cost of any fish to the consumer to-day" — which is nonsense as fresh haddock and cod can be purchased retail at 10 and 12 cents in Montreal today and has never been as high as 24 cents. Fish glue is listed at $1 per pound. It is selling at $1.50 per gallon or 15 cents a pound by local dealers at present.

It is not necessary for us to analyse this amazing proposition any further as our readers are fully competent to judge for themselves, but we bring the scheme to their notice so that they may be in a position to advise the uninitiated. As some priest, poet, prophet or King once remarked "There's a sucker born every minute" and schemes like this are designed to entrap the unwary. This existing fish concerns in Canada offer splendid opportunities for investment at the present time without the investor supporting such an atrocious pipe dream as the "Imperial Fishing Company of Canada, Ltd."

Our Fisheries After the War

Two authorities in Canada and Newfoundland state their views.

We reprint herewith two articles which appeared recently in the Montreal Star and the St. John's Trade Review with reference to our Fisheries after the War. Both are by men well known in the fishing industry of both Canada and Newfoundland, and the articles contain much food for thought.

Mr. J. A. Paulhus, of the D. Hatton Company, Bonsecours street, has been an interested reader of the series of articles published in The Star on the object of "Canada after the War". He, however, has his own views as to the way to look after the millions who will undoubtedly flow into the country, once the war ceases and once European countries return to normal or near-normal. Mr. Paulhus is a fisheries expert, a director of the Canadian Fisheries Association, and is regarded as one of the best informed men in Canada on the fisheries question.

"I have read the articles", said Mr. Paulhus, "and I have noticed mention continually being made of manufacturing and farming, as a means to take care of the onrush of immigrants who will come to our shores, after the war. But, in my opinion, and I can back it up with statistics, one of the greatest natural resources in the country has been lost sight of. I refer to the fisheries. Canada is one of the greatest fisheries countries inthe world—of course, I mean the potentialities of the industry, if developed. With thousands of miles of coast and thousands of square miles of rivers and island lakes, the possibilities are enormous. Take last year, for instance. The statistics show that there were some $31,000,000 worth of fish sold in the country. Allow at least $10,000,000 for fish which was not thrown on the market, but was consumed in places adjoining the coasts and shores of rivers and lakes, and we have an annual business of over $40,000,000 — a goodly sum, if you will, but a mere bagatelle, when one takes into consideration the possibilities of the industry.

"Now, why not encourage incoming population to engage in the fishing industry. Take, for instance, the Gaspe Peninsula, as but one example. There are over 1,000 miles of sea coast, fronting some of the finest cod, mackerel and herring grounds in the whole world. The land is fertile, the interior is well wooded, and there is a railway circling the peninsula and affording every facility for the shipment of merchandise. At present there are some 90,000 or 100,000 people residing on the peninsula. There is no doubt but that, if the land were divided up into lots and apportioned to the incoming stranger, free or at a nominal price, the peninsula could easily accommodate 2,000,000 people. And, all of them would find ample means to sustain themselves by engaging in the fisheries work. For, the fisheries down there are unlimited.

"I think that this would be a better plan than that of granting farming land in the west. For, the fisherman, from the very start is self-supporting. His product, unlike that of the farmer is not dependent upon contingencies of the weather, condition of the land, etc. He has no preliminary work to do. He stands in right away to be independent. In the case of the homesteader or the assisted settler, he has much pioneer work to do. He must clear the land. He must get his seed. Then he must wait. And after waiting, his efforts may all turn to naught. There may be a drought or excessive rains may spoil his whole crop. Anyway, it is years before he can put himself on his feet, after having paid his initial expenses.

"IN the case of the fisherman, all is different. I would have such settlers placed, whether on the Pacific or the Atlantic coasts or on inland lakes, in such a way that they would have a little farm, at the same time. Thus when not fishing, they could work up this farm, which would always be growing in value, as a fixed asset.

'Looking at the matter from the national standpoint, we cannot but realize what a great thing the putting into effect of such a plan would be for Canada. Besides giving immediate stability to newly arriving population, by affording them, without delay, a means of self-sustenance, it would mean the development of one of Canada's greatest resources. And it is needless to argue the point that the development of the natural resources of a country, is, economically, one of the best means to put that country on the road to prosperity.

"At present, Canada's fishing industry is certainly not sufficiently developed. Last year the business totalled $32,000,000 in fish sold on the open market, of which $30,000,000 came from sea fisheries, and $2,000,000 inland. There are 94.000 persons engaged in fisheries 84,000 on sea, and 10,000 on land. 282 steamships, 1,235 sailing vessels, 431 other boats, 38,058 smacks are engaged in the fisheries. The total investment in vessels and equipment, is, $24,500,000. You can see from this that the fishing busines in Canada is merely in its infancy. It is, however, an exhaustless source of wealth, for those who care to develop it. And, I would say to all incoming immigrants, before sending them to the farm of the factory: 'Back to the fisheries, where you will be a self-supporting and independent member of society from the very start."

Under the caption of "Trade after the war" Mr. W. A. Munn of St. John's, N.F., writes in the Trade Review as follows:—

EVERY ONE admits that there will be radical changes in all kinds of business after the war. There always are changes after big upheavels, and there will be great strides after the present conflict is over. Take up the Canadian papers for the past 12 months, and you will find letters and interviews from all the principal statesmen and masters of industry, giving their ideas of what these changes will be for Canada, and suggesting what preparations should be made to take advantages of the new opportunities.

The main object they all have in view for Canada is to double and treble its present population during the next five years. Statesmen in Canada and England all recognize that, when the armies are disbanded, the millions of soldiers will find it very hard to fit into their old work again. Many of them will never submit to the old-hum drum life after their great excitement for months after years on the battle field; therefore, it is believed that a very large majority of these young men will be ready to emigrate to new homes, if suitable places and occupation is offered to them. The Canadian Government are ready to welcome all that will come, and plans are being made now to offer every inducement to bring new settlers to all parts of Canada.

Any reader of history will see that Canada is only repeating what England did after the great European wars of two and three hundred years ago. The skilled workers in silk and woolens were driven from Flanders then, just as they are to-day, and found homes in England. They started the great industries in England that we find now with their world-wide connections, and that have brought wealth and prosperity. The money lenders of Lombardy found a new and congenial home on Lombard Street, and readily made London the financial centre of the world. Many people believe that the British Empire owes its existence to a series of fortunate and lucky accidents that brought success where it was least expected. Whether that is true or not, let us be thoughtful enough to see how these lucky accidents did happen, and let us take advantage of circumstances to bring profit to our Country when the opportunities occur.

What Must Newfoundland Do?

The main object for us to consider is, what we have to do to benefit our Country. We can easily increase our population, if we can show happy homes and profitable work for people to do. These are the problems for us to solve, and it should be everyone's business to help to do this. There are scores of different ways where this can be done; but let me say a few words on our great industry, the fisheries. Every country does its utmost to improve its fisheries. It is only natural, for fish is one of the great food supplies of the world. You will find fish industries in every corner of the world, but the very greatest of all is our Newfoundland fisheries.

We are situated midway between the old and new hemispheres. We have unrivalled advantages to supply the best paying markets of the world. The great inducement that Canada has to offer prospective settlers is its prairies and wheat fields of Manitoba and the Northwest. They tell you of the golden grain springing out of the ground worth millions of dollars, but, in its northern latitude let us remember that is a question of hours with them every year, whether there is sufficient time each summer to ripen that crop without injury from early frosts.

Here in Newfoundland we have even larger prairies than Canada can boast of, but instead of plowing the land we plow our sea prairies. Instead of running the risk of absolute failure of all our work, we can garner three crops in the year from our prairies. First, we have the Seal Fishery; second, the Cod Fishery, and, third, the Herring Fishery.

You say the farming industry has many auxiliaries, and so have we. There is the Lobsters, Salmon, Whales and many other kinds of fish that will find a ready market when we have the surplus population to work these industries as they should be.

The Manitoba wheat has to pay a tax to the railways for hauling it two thousand miles until it reaches Montreal, or, still farther, to tide water.

This wheat is not as near market then as our fish is when we land it on our shores—free from any railway charges—that means, very often, the balance of profit to the industry.

The land has to be plowed, the seed sown and fertilized every year, or it will quickly deteriorate, but our fisheries are free to all, and generate of their own accord, with unfailing regularity.

It should be plain to averyone that we have advantages here in Newfoundland that outrival inducements that Canada is offering to intending settlers.

To find profitable work for an increasing demand for the goods you have to offer.

This leads us, first, to consider the outlook for new markets, and, secondly, the chance to increase our supply of fish to meet that demand.

Let us take these matters up separately.

Foreign Markets.

IN the city of Paris on June 14th, 15th, 16th and 17th of this year, there was held a noted Conference of the Allies (England, France, Russia, Italy, Belgium and other European countries) to discuss co-operation between them on commercial principles.

They arrived at unanimous conclusions on these important matters:—

1st. Measures for the period of the war;

2nd. Measures for the transitory period of reconstruction after the war, more especially concerning commercial, industrial, agricultural and maritime problems of the allied countries;

3rd. "Permanent measures" of mutual assistance and collaboration among the Allies.

Subjects of this kind will have far-reaching results for every part of the British Empire, and it shows the absolute necessity for us to consider the future prospects of our Newfoundland trade.

The only chance for progress is to grasp the opportunity when it is offering, and now is the time to do it.

At this Conference in Paris we find from all Britain's allies, ready and willing to make mutual concessions for commercial reciprocity. How it is that Newfoundland had no representative there to suggest to the British Statesmen who were handling these questions that Newfoundland has an unlimited supply of fish for the allies that actually needed it?

"France" is one of the best markets for salted cod fish in Europe.

"Russia" is the greatest market for pickled herrings in the world.

Both of these countries are new markets for Newfoundland, and have vast possibilities for our fishery products.

The trade relations between Great Britain and Portugal, Spain, Italy and Greece are sure to come in for economic adjustment, and the chances of getting reduced and preferential duties for our food products in all these countries should be seriously investigated.

At the present time the duty on Newfoundland codfish entering—

Portugal	is about	$2.00	per quintal.
Spain	"	2.40	"
Italy	"	.50	"
Greece	"	.60	"
France	"	6.00	"

For many years Norway and Iceland had a preference of about 25 cents per quintal on all their fish entering Portugal, which was a serious impediment for Newfoundland trade. During the month of September this preference was abolished and Newfoundland codfish placed on the most-favored nation tariff. Straws show how the wind is blowing, and this is certainly a good omen, and let us follow up this advantage in an energetic and practical way.

England is a very much larger customer of all these countries than they are from her, and, therefore, in an adjustment of trade there is every reason why Newfoundland should benefit.

The ideal of the statesman who wishes to govern a happy and contented people is to give them a bountiful supply of cheap and wholesome food.

If the country cannot produce this food in an economical way there should be every reason why it should be placed upon the "free list''. Each one of these countries need our fish, and, if this matter was brought forward in a right and proper way, our arguments should be overwhelming.

It was the famous Chinese Gordon (than whom there is no better authority) who stated "The stomach rules the world.'' Therefore, a country that produces a food product such as Newfoundland does can command attention from any country in the world; but what are we doing at the present time to extend our foreign markets? We find the Canadian papers full of suggestions of what should be done, but from all outward appearances we are drifting along in the most unconcerned way, and will make up (if we ever do) to find the opportunity is past and gone. This brings us to the second consideration.

How Can We Improve Our Fisheries?

WE can increase our fisheries.

We have done it in the past, and we can do it again.

About one hundred and forty years ago saw the commencement of our Labrador codfishery as it is carried on to-day.

A little more than one hundred years ago saw the beginning of our seal fishery. It was a thing unheard of to battle with ice floes in winter time: but our Newfoundlanders were equal to the emergency and our men were trained to do it successfully.

The winter codfishery that is now being developed to such a large extent at Rose Blanche and Channel during January, February and March, is another instance of what our fishermen are capable of.

I could also mention the Medicinal Cod Liver Oil industry, started less then seventy years ago. The lobster fishery of more recent date: but these are only samples of many things that will develop when our population increases.

All of these fisheries have been carried on up to this time almost exclusively by sailing vessels, with the exception of the seal fishery.

England and Scotland have increased their fisheries many times in the past fifty years, but the old sailing vessels and boats have been discarded for strong and powerful steam trawlers.

The day is fast approaching when we must do the same, or let some other country exploit our fisheries to feed the markets of Europe and elsewhere.

Our fishermen are now realizing the great benefit of auxiliary motor power for large and small boats that can be worked in a most economical way, and this will certainly increase our output of fish.

When we can get the prices for fish, such as we are offered to-day, we certainly will find the means to increase our supply.

If we are to have any ambition to exploit the new markets of Europe, we must get men at work, who understand those markets thoroughly.

We must cure our codfish and herring in a way that suits their taste and requirements, and deliver it when wanted.

Let us profit from the way Norway is training her young men in Fishery Schools.

If we want to make changes, we have to start with the boys when they are at school, and when they are just leaving school. Train them in new and improved ways, that will help them all through life.

Show them the way to make their heads save their poor tired feet and hands. Show them the scientific plan of knowing when and where the fish are most likely to strike in, and not waste their time in unlikely places.

In Norway everything is done to educate the young fishermen by the very best teachers ina practical way. Why don't we do the same in Newfoundland?

Now, Mr. Editor, I must not take up too much of your space. There is very much more to be said, but I think you will agree that it is about time that something was done to start a discussion on what should be done to improve our trade after the war is over, but our plans should be made before the war is over.

Everyone must recognize that we have serious problems to solve, but there is nothing that we cannot do, if we only make up our minds that it has to be done.

CANADIAN FISH IN ENGLAND.

In conversation with Mr. Thos. Robinson, Grimsby, England, re the prospects and sales of frozen fish, he said that the halibut and salmon are selling pretty freely, and in addition he will be able to offer to the trade next week frozen Canadian witches, flounders, soles, skate, roker wings, and finnan haddies. This should under existing conditions be a good opportunity for securing supplies that will be a valuable help to country fishmongers, friers, canteen caterers, and the trade generally—Fish Trades Gazette.

NEWFOUNDLAND GOVERNMENT ASKS FOR MAJOR GREEN'S SERVICES.

Premier Morris, of Newfoundland, cabled Premier Borden, recently, asking if Major Hugh A. Green's services as Director of Fish Supplies could be used on Newfoundland's behalf.

It is expected that Major Green will be permitted to assist Newfoundland in organizing for participation in the War orders.

Canadian Fisheries During October, 1916

(Furnished by Naval Service Department).

THE weather during October was variable in the Cape Breton district and fishing results varied in accordance therewith.

In Richmond county the weather was favourable and cod plentiful; while in Cape Breton county fish were scarce. There was much rain and some cold weather in Victoria county and cod generally were not plentiful. At Ingonish bait was scarce in the beginning of the month, but in the latter part squid appeared and fishing was good inshore. Fishing could only be carried on for about half the time in Inverness county owing to unsettled weather, mackerel were found to be plentiful when the weather permitted operations.

The quantity of cod landed by the Lunenburg fleet during the mont his less than that landed during the same month last year but the value is considerably greater. Five men were lost from a Lunenburg vessel in a heavy gale while returning from the banks.

Lack of bait was a pronounced feature of the month's operations along the south shore of Nova Scotia. The quantity of herring taken for all purposes in the whole of the province during October this year only amounted to 18,000 barrels against 55,000 during October last year.

In the Bay of Fundy, generally, fishing was carried on under fairly good weather conditions, and pollock fishing, especially, was good.

A storm about the middle of the month did considerable damage to weirs in St. Andrews bay, and near St. John harbour.

In the Gaspe district of Quebec codfish were scarce and many of the fishermen hauled up their boats and left for lumber camps.

Salmon fishing in the Southern (Fraser river) district of British Columbia during October this year was not so good as that for the same month last year. In the Northern district, on the other hand, notwithstanding frequent southeast gales, and in the Vancouver Island district salmon fishing results were far ahead of those for October last year.

Summary of the Quantities and Values of all Sea Fish caught and landed in a Fresh or Green State; and an estimate of the Quantities Marketed, or intended to be marketed, fresh, dried pickled, canned, etc., in the WHOLE OF CANADA, for the MONTH of OCTOBER, 1916.

Totals for the Month of OCTOBER, 1915.

	Caught and Landed in a Fresh or Green State.		Proportion used Fresh, Dried, Pickled, Canned, etc.	Caught and Landed in a Fresh or Green State.		Proportion used Fresh, Dried, Pickled, Canned, etc.
Kinds of Fish.	Quantity.	Value.	Quantity.	Quantity.	Value.	Quantity.
Salmon, cwts.	315,670	$1,192,997	....	94,520	$443,980	......
Salmon used fresh (or frozen), cwts.			168,729	......	....	44,490
Salmon canned, cases			174,728	......	....	57,026
Salmon smoked, cwts.			57	......	....	393
Salmon salted (dry), cwts			....	......	....	32
Salmon mild cured, cwts.			48	......	....	13
Salmon pickled, cwts			....	......	....	935
Lobsters, cwts			....	......	....	......
Lobsters canned, cases			....	......	....	......
Lobsters shipped in shell, cwts.			....	......	....	......
Cod, cwts.	155,410	384,175	....	177,914	331,168	......
Cod used fresh, cwts.			10,140	......	....	10.443
Cod smoked, cwts.			276	......	....	......
Cod green-salted, cwts.			11,890	......	....	11,078
Cod smoked fillets, cwts.			210	......	....	100
Cod dried, cwts.			40,103	......	....	48,337
Haddock, cwts	50,412	101,827	....	55,234	77,899	......
Haddock used fresh, cwts.			8,036	......	....	22,280
Haddock canned, cases	....	....	1,608	......	....	240
Haddock smoked, cwts.			4,543	......	....	1,876
Haddock green-salted, cwts.			164	......	....	175
Haddock dried, cwts.			10,129	......	....	9,488
Hake and Cusk, cwts.	28,827	31,789	....	26,552	23,952	......
Hake and Cusk used fresh, cwts.	......	....	480	......	....	630
Hake and Cusk green-salted, cwts.			105	......	....	......
Hake and Cusk smoked fillets, cwts.			....	......	....	180
Hake and Cusk dried, cwts.			9,378	......	....	8,460

Pollock, cwts.	24,471	38,477	......	17,099	19,060	......
Pollock used fresh, cwts.			606	......	......	635
Pollock green-salted, cwts.			50	......	......	20
Pollock smoked fillets, cwts.			......	......	......	......
Pollock dried, cwts.			7,920	......	......	5,473
Herring, cwts.	80,373	82,967	......	146,179	162,790	......
Herrings used fresh, cwts.			27,228	......	......	10,415
Herring canned, cases.			1,517	......	......	1,325
Herring smoked, cwts.			12,497	......	......	36,987
Herring dry-salted, cwts.			2,000	......	......	911
Herring pickled, brls.			825	......	......	13,553
Herring used as bait, brls.			10,607	......	......	8,864
Herring used as fertilizer, brls.			......	......	......	462
Mackerel, cwts.	24,615	123,399	......	25,970	117,285	......
Mackerel used fresh, cwts.			8,954	......	......	11,605
Mackerel canned, cases.			......	......	......	......
Mackerel salted, brls.			5,221	......	......	4,808
Shad, cwts.	19	222	......	1	12	......
Shad used fresh, cwts.			10	......	......	1
Shad salted, brls.			3	......	......	......
Alewives, cwts.	60	120	......	44	88	......
Alewives used fresh, cwts.			60	......	......	44
Alewives salted, brls.			......	......	......	......
Sardines, brls.	42,060	82,620	......	47,350	44,650	......
Sardines canned, cases.			19,413	......	......	18,144
Sardines sold fresh and salted, brls.			37,345	......	......	42,390
Halibut, cwts.	24,000	129,030	......	27,430	140,760	......
Halibut used fresh, cwts.			24,000	......	......	27,430
Halibut smoked, cwts.			......	......	......	......
Soles, cwts.	639	1,618	639	358	1,117	358
Flounders, cwts.	260	337	260	268	288	268
Skate, cwts.	260	278	260	209	196	209
Smelts, cwts.	1,753	8,814	1,753	1,934	5,852	1,934
Oulachons, cwts.			......	......	......	......
Whiting, cwts.	4	12	4	3	6	3
Tom Cod, cwts.	8	40	8	......	......	......
Octopus, cwts.	2	14	2	4	24	4
Swordfish, cwts.	111	746	111	161	1,046	161
Albacore, cwts.	245	700	245	300	600	300
Oysters, brls.	8,743	45,754	8,743	9,817	33,810	9,817
Clams, brls.	3,354	9,527	......	1,452	2,748	......
Clams used fresh, brls.			2,575	......	......	1,037
Clams canned, cases.			779	......	......	415
Scallops, brls.	750	1,875	......	315	630	......
Scallops shelled, gals.			1,500	......	......	630
Quahaugs (sold fresh), brls.			......	......	......	......
Crabs, Cockles, etc., cwts.	793	1,400	329	445	1,359	357
Winkles, cwts.			......	......	......	......
Shrimps, cwts.			......	......	......	......
Squid (bait fish), brls.	1,417	6,703	1,417	880	4,000	880
Launce (bait fish), brls.			......	......	......	......
Total value.		$2,245,441	......	......	$1,413,320	......

SKY HIGH PRICE FOR HALIBUT

The fresh halibut fare of sch. Robert and Richard sold to the American Halibut Company, Gloucester, on November 25th at 25 cents a pound for white and 14 cents for gray, which is one of the record prices of the year.

SALMON CANNERY BURNED.

VANCOUVER, B.C., Nov. 20.—The Great North-Western salmon cannery, together with a wharf and a number of houses of Japanese fishermen, burned Saturday evening at West Vancouver. The loss is $20,000.

The Fisheries of Sweden

Sea and Inland Waters.

The Swedish Legation in London has issued a historical and statistical handbook called "Sweden," in two large volumes of more than 700 pages each, published at Stockholm in 1914. This encyclopaedic work gives a resume of all the different industries of the country—agriculture, dairy farming, forestry, etc. A section is devoted to Fishing, and we should like to put before our readers the gist of the article.

Sweden being surrounded to a large extent by the sea, and possessing innumerable lakes scattered in its interior, its inhabitants turn their eyes to the waters as the source of a considerable portion of their livelihood. The increasing cultivation of the country and the great value of its forests, have had as a result that fishing is not of the same importance nowadays as it once was. But even to-day fishing has a considerable value as a source of livelihood. About 40,000 people live exclusively by fishing, and it also constitutes a considerable subsidiary industry both for the coast population and for the agricultural population in the interior of the country.

Herring.

For the Swedish fishery, herring (clupea harengus), and small or Baltic herring are the most important of all Swedish species. Herring is nowadays to a large extent sold fresh, partly for export, especially to the German curing houses, from Bohuslan, Halland, and Skane, and partly for home use. In years when the herring fishery was good, large quantities of herring from Bohuslan, which were not found worth salting, were used in preparing guano and herring oil. The best herring were salted and for the most part exported. Baltic herring is, when fresh, a delicious fish, and also when salted it constitutes an everyday article of food among the population of Central and Northern Sweden. Small herring is also eaten smoked as a bloater. The real anchovy (Stolephorus encrasicholus) occurs only rarely in Swedish waters, but the other species of herring, the sprat (Clupea Sprattus) occurs both along the west and the east coast, and is prepared in Bohuslan in the salted and spiced form—which in tins labelled "ansjovis" (anchovies) has found a very extensive sale both at home and abroad.

Cod.

Among the cod family (Gadidae) the following species are extensively fished:—The cod proper (Gadus morruhua), the haddock (Gadus aeglefmus), the whiting or merling (G. merlangus), the ling (Molva vulgaris), and the hake (Mereuccius vulgaris). The cod occurs all around the coast all the way up towards Norrland, although in decreasing numbers, but it is not so very extensively fished in Sweden as in Norway, although cod fishing along the west coast, and also in the Baltic all the way up to Gottland, does not lack importance. The other species mentioned above belong to the west coast only. The ling plays an important part in the Bohuslan fisheries, and it is the fish that is caught in greatest numbers in the Bohslan deep-sea or bank fishery, which is pursued in distant waters, near the Shetlands and in other parts of the North Sea. Nowadays the fishery in question is carried on for the most part in large cutters bought in England, but large motor boats are also employed. The long line is used in this fishery. The old-fashioned "bank sloops" have quite disappeared. Besides the ling are also caught the cod proper, the torsk. One or, as a rule, several trips are made during the spring and summer.

Mackerel.

Later on in the season many Bohuslan fishermen go with the same class of boats on the mackerel fishery with mackerel lines in the North Sea, a fishery which, carried on from small decked motor boats, is pursued at an earlier period in the Skagerrak and Kattegat, where in the early part of the summer mackerel is caught by means of drift nets. The Swedish mackerel line fishery in the North Sea, which began in 1884 now ranks in importance next to the herring fishing. In 1912 the Swedish mackerel fishery brought in at first hand about 1,892,000 kr. The greater part of the mackerel caught by line in the North Sea is salted and split and exported to the U. S. A.

Flat Fish.

Among the flounders, the plaice (Pleuronectes platessa) is of the greatest importance for the Swedish fisheries. For the Baltic fishery, however, the common flounder (Pheuronectes flesus) plays the most important role. It is found as far up as in the Gulf of Bothnia. Other kinds of flounder caught in considerable numbers on the west coast are the turbot (Bothus maximus), the brill (Bothus Rhombus), the sole (Solea vulgaris), the halibut (Hippoglossus vulgaris), and the poledab (Pleuronectes cynoglossus). The two latter species are found in deep water where the poledab is caught by means of the trawl.

The lobster is caught only on the west coast, but south of Hallands Vadero not in any considerable numbers. The oyster fishery, which of late years has fallen off very considerably, is nowadays carried on only in some few firths north of Marstrund.

Eels.

The eel, like the salmon, belongs it is true both to salt and to fresh water; as, however, in Sweden by far the greater part of the eels caught are taken in the sea off the coast on their autumn migration to the Atlantic, there is good reason to reckon the eel as belonging to the sea fisheries. Most of the Swedish coast or migrating eel is exported to Germany, whither it is conveyed by the German coast vessels, which make regular visits to the more important eel-fishing centres.

River and Lake Fish.

Sweden possesses a great number of large and small lakes, and has in this respect, in proportion to its area, the second place among the countries of Europe. Sweden also possesses about 40 salmon rivers of a total length of 9,000 kilometres. Of far greater economic importance for the country than the salmon are the so-called coarse fish, i.e., pike, perch, bass, bream, roach, etc., which as a rule form the greater part of the fish caught in the Swedish lakes. In the mountain lakes in the north of the country, there exist a number of salmonidae, charr, trout, and grayling; while in the lower lying lakes the vendace is of paramount importance. All the species of fish mentioned, with the exception of the charr, are also found in the Baltic; the grayling, however, is caught only in the northern part of the Gulf of Bothnia. The crayfish industry is of no little importance. In general the lake fisheries of Sweden have not been managed in a rational manner. Still, they have been fairly productive. One chief reason of the poor yield of the lake fishing in Sweden is that it is carried on and managed in an unsatisfactory manner, for the number of owners of the fishing rights is so great that it is impossible to carry on the fishing in accordance with a uniform plan.

Pioneers in Fish Culture.

Sweden is the first country in Europe where attemps were made to assist the spawning of the common inland lake fish by means of special contrivances for the purpose of improving the fishing. As early as 1761 the Mayor of Linkoping published in the "Proceedings of the Royal Academy of Sciences" an essay culled "On the Planting of Fish in Inland Lakes," where he gave an account of a method for hatching out perch and other inland lake fish, in pens lined with brush. His attempts were afterwards forgotten till about 1850, when attempts at fish-culture were again begun, and it was not till 1865 that a complete institution for salmon-cultivation was established at the expense of the State, whose normal institution afterwards became a pattern for a large number of such institutions throughout the country, of which there are now between 30 and 40.

In regard to the ownership of fishing waters, there were provisions even in our oldest laws, and in the Code of 1734, too, but laws for the protection of fishing were not made till late in Sweden. The Fishery Law now in force is of October, 1900.

Administration.

Fishery administration has been gradually developed. Several measures have been taken by the State during the last few years for the promotion of the fisheries of Sweden. Since 1907 a sum of 750,000 kroner annually has been disbursed in the form of loans. In 1911 the Riksdag granted 2,788,000 kroner for the erection of fishing harbours, and in the years 1912-14 a total sum of 210,000 kroner more for the same purpose. Since 1905 a State grant has enabled the Royal Board of Agriculture and the Central Meteorological Office to issue storm-warnings to the west and south coasts of the country to the great benefit of the fisheries. In 1914 the storm-warning service was extended to the east coast. By a Royal Ordinance the State Insurance Office took measures for the insurance of fishermen against accidents. From 1903 courses of instruction in navigation have been arranged for the fishermen in Goteborg. From 1901 a yearly sum of 7,000 kroner has been granted for division between the Agricultural Societies and the County Councils, on condition that these corporations contribute an equal amount, the money to be awarded as bounties for killing seals, and thus in some measure to lessen the loss caused to the fishermen by the animals in question. Since 1914 the State alone pays those bounties — 4 kroner for each seal killed.

In 1908 the Riksdag granted a sum of 29,000 kroner for a vessel to be employed in fishery experiments and investigations in the Baltic and Swedish lakes, entrance to which can be obtained from the sea in question. An annual grant of about 8,500 kroner is now made for the upkeep of the vessel, a large motor boat. –Fishing News.

Trade Inquiries

For specific information regarding these inquiries, apply Department of Trade and Commerce, Ottawa, and quote reference number.

1865. **Canned salmon.**—A concern in Bristol desires to enter into communication with a firm in Canada with a view to obtaining supplies of canned salmon for the United Kingdom market.

1873. **Canned salmon and lobster.**—A gentleman in Paris, France, desires to get in touch with Canadian canners of salmon and lobster.

1877. **Cod oil.**—A Birmingham firm is open to purchase cod oil for the use of tanners. Samples should be forwarded with quotations.

1878. **Cod oil.**—A Hull firm is in a position to import large quantities of cod oil. Samples should be sent with quotations.

1879. **Cod oil.**—A Hull firm is prepared to consider quotations on cod oil, c.i.f. British port. Samples must be sent.

1880. **Cod oil.**—A Liverpool firm would like to hear from Canadian exporters of cod oil. Samples should accompany quotations.

1869. **Cod oil.** — A North country manufacturing company desires the address of Canadian firms who can ship cod oil.

Cuban Notes

HAVANA, Nov. 10.—Much codfish is arriving from Alaska by way of San Francisco and New Orleans. arrivals this week included 500 cases from Nova Scotia. Following are this week's prices c.i.f. Havana:

Codfish, per cwt.	$10.00 to $12.00
Haddock, per cwt.	8.00 to 9.00

Importation:

November	7, ss. "Limon".......	248 drums.
"	8, ss. "Mexico",.... ..	151 drums.

On account of lack of demand for codfish in drums, the price on this fish remains weak. Haddock and hake are obtaining an extremely active demand, and holders are maintaining their figures, with great strength. Codfish is quoted at 9, haddock at 10, and hake at 8.50 cents per pound.

Codfish in Cases.

Importation:	Cases.
Nov. 6, ss. Chalmette, from New Orleans..	950
" 7, ss. Limon, from Boston...........	774
" 8, ss. Pastores, from New York.....	199
" 8, ss. Mexico, from New York......	17

The market has been active on codfish in cases, with a slight advance in price. An upward tendency is being predicted as a result of the fact that there is a better consumption during this season. Norwegian cod sell at $15 to $16, and that from other sources at $13.50 to $15 per case.

Herrings.

The arrivals this week amounted to 444 boxes. A good demand is in evidence and the same price of $1.40 per large box still prevails.

A salt mackerel famine seems to be imminent this year. The trade has recognized that there is a shortage, and that means more than the simple statement would imply. It is time to buy now, at the best price obtainable, to be sure—but buy.—N.Y. Fishing Gazette.

British Columbia Fisheries Report for 1915

THE Report of the Provincial Fisheries Department for the year 1915 has just been issued by the Kings Printer. It is a notable publication containing many valuable papers, including the "Life of the Sockeye Salmon" by Dr. C. H. Gilbert, "The Halibut Fishery. The Biology of the Species and the Condition of the Banks" by W. F. Thompson, "The Life of Pacific Oysters—Environment" by Dr. Jos. Stafford, and reports from the spawning grounds of the principal salmon streams. The report is replete with statistics, illutrations, charts and tabulations, and throughout maintains the high standards of reports issued by this Department.

THE value of the fishery products for the Province for the year ending March 31st, 1915, totaled $11,515,085, or 36 per cent. of the total fishery products of the Dominion. British Columbia fishery products exceeded those of any other province by $3,784,896 and exceeded the combined fishery products of New Brunswick, Ontario, Quebec and Prince Edward Island by $633,616. This favorable showing is made notwithstanding that British Columbia shows a decrease from that of the previous year of $2,376,312 owing to the fact that it was "an off year" on the Fraser.

In reviewing the run of salmon to the principal rivers and inlets it is brought out that department investigations make it appear altogether probable that a componant part of the run of sockeye to the Fraser River District approaches that river from the north, through Johnston Straits, and that all do not come in from the open sea through Juan de Fuca Strait as has been generally supposed.

Considerable comment is given to the importance of Prince Rupert as a fishing center. The development of the halibut fishery there is the most gratifying feature of the year. In 1913 Prince Rupert received 7,520,810 pounds of fresh halibut and in 1915, 16,095,315 pounds.

DURING the year the department continued the scientific investigations of the life history of important food fishes which distinguishes its work. No other branch in Canada has equalled in importance teh economic fishery investigations of this department.

The appendix of the report just issued contains the third "Contribution to the Life of the Sockeye Salmon", by Dr. C. H. Gilbert. During the year under review he conducted a most comprehensive examination of sockeye runs throughout the Province. Besides the investigations of the principal river systems some forty-four smaller rivers and creeks received attention. One of the principal reasons for extending the scope of the investigations was to throw further light on the applicability of the Parent Stream Theory. The validity of this important theory has been conclusively demosntrated in the case of the larger rivers of the Province, in the reports of the department for 1913 and 1914. Examination of many thousands of scales of sockeye salmon has removed any possible doubt that the progeny of the Fraser River fish return to that water to spawn. It is also true of the salmon of each of the large river basins. They all return to the parent stream. And it is now shown as a result of the past year's work that his principal holds in case of all the rivers and creeks of the Province, however, small or however near together they may enter the sea. In demonstrating this theory Dr. Gilbert has tabulations of scales from over fifty thousand sockeye. The practical significance of this demonstration is obvious since in order to maintain the run of salmon to a given district, it will not be adequate to install a hatchery on any convenient stream, into which the entire output of the hatchery is turned. Each stream must receive separate consideration. The original source of the eggs is seemingly a matter of no importance. The destination of the adult salmon is determined by the location in which they were reared. To what extent the Parent Stream Theory holds for the tributaries of the larger systems, is as yet undetermined. and is of the utmost importance.

DR. GILBERT'S paper contains many reproductions from microcopic photographs of the nuclear region of the scales,—that part of the scale first produced—the record of its life in fresh water. The paper is a great addition to the contributions on the life of the Pacific salmon and will be read with interest by all concerned in this economic study.

William F. Thompson, in charge of the Halibut investigation, conducted by the Department, contributes to the appendix of this report a paper on "Statistics of the Halibut Fishery of the Pacific, their bearing on the Biology of the Species and the Condition of the Banks", of this paper the report says:

"The most immediately important conclusion in this paper is the fact of depletion. The evidence submitted is conclusive. Mr. Thompson frankly disregards all published statistics of the catch and proves his contention from the logs of over nine hundred voyages of vessels engaged in halibut fishing. The tabulations submitted are invaluable in considering the future of the fishery. Indeed the contribution which is made to the knowledge of the species by such detailed statistics is surprising in itself. The present condition of the fishing banks is undoubtedly shown to relate to its past history and justifies the conclusions drawn from the study made on the biology of the banks.

AMONG the facts presented in the paper one which stands forth conspicously is the great effect which the operations of the fishermen have had on the character of the halibut population of the various banks. Not only have they been very extensively depleted but the proportion of the mature and immature, of large and small fish, has been radically changed. The extensive fishing has, it is evident, made its influence felt throughout the whole biological appearance of the species and in doing so it has rendered precarious the future of the banks, particularly the older or longer known. The number of halibut the older or longer known. The number of halibut still found on them is so small, and the percentage of mature fish in the population has fallen so low that it appears that the halibut in the Pacific, like the Atlantic, will drop to a minor position among the food fishes. It is difficult to see wherein more proof of depletion than is here given can be adduced save the final one of commercial extinction of the species.

THE rate of decrease on the banks, over 70% for each decade, is surprisingly large. Yet it must be remembered that the constant shifting to new banks has staved off a portion of the effects of impoverishment. The progress from the banks at Cape Flattery to Hecate Straits, and from there to Yukutat and beyond, has been at a constantly accelerated rate as the total catch has grown from year to year. When expansion is at an end, as will inevitably be, the fishing fleet must return to the older known banks, which will then be depleted beyond their present condition unless measures are taken to allow them to recuperate. It is very plain that they cannot support the fishing now existant or anything comparable with it.

Although a prophecy of immediate decline in the total yield would be out of place, the situation which Mr. Thompson makes clear is sufficiently serious to warrant the taking of immediate steps for conservation. The contemplation of experiments on hatching the halibut must lead simply to illfounded optimism on the part of the fishermen. In the face of the wholesale reduction of the numbers of halibut on the banks, the establishment of hatcheries cannot be regarded as anything but futile and exceedingly expensive experimental work. The hatching of, cod and plaice has been carried on by many governments without any tangible results. In the case of the halibut nothing could be known as to its results for many years, and unlikely as they are to be of value, those years might incure the ruin of the industry if action were delayed pending the arrival of a conclusion. It is therefore, necessary to regard the suggestion of hatchery relief as of purely theoretical value and one which may do great harm by misleading those with the interest of the fishery at heart.

MR. THOMPSON does not discuss extensively the steps which could be taken to conserve the halibut but his paper brings out many facts vital to their formulation. The exhausted conditions of the banks off our coast is clearly shown and established the vital need of their protection during taht portion of the year when they are yielding the largest proportion of small and immature fish. Since the main fishing has shifted farther north there should be no great obstacle to the application of protective measures to the southern banks. Protection to a small area or the establishment of closed zones of comparative limited extent can have no effect on the whole. Effects of close season in various months may be judged from the comparative yields given in Mr. Thompson's tabulations, the value of such closures being in direct proportion to the activity of the fishery at the time they are in force.''

In addition to the above paper there is reproduced in the appendix of this report a paper entitled, ''The Halibut Problem'', by Mr. Thompson which was read at the 1916 meeting of the Dominion Commission of Conservation, which will be found of value.

Dr. Jos. Stafford, of McGill University, who was retained by the department in 1913 to report on the native oyster of the Province, continued his investigations and in this report has an exhaustive paper on ''The Environment of the Pacific Oyster'' which is of especal value to our oyster growers.

Reports on the Spawnng Grounds.

Reports from the spawning grounds of the Fraser, Skeena and Naas Rivers and Rivers and Smith Inlet are reproduced.

The report from the Fraser, by John Pease Babcock, the Assistant to the Commissioner, shows that the run of salmon to that district in 1915 presented unusual features, both on the fishing and spawning grounds. It is shown that for the first time the catch in our waters of the Fraser River District was greater than that in the American waters of the District, and notwithstanding the combined catch consisted of only 155,613 cases, being less by 34,149 cases than that of four years ago and the smallest yet recorded in that district.

The report states that there were less sockeye on the spawning beds of the Fraser above Yale than in any former year since he began his investigation in 1901. And on the other hand the spawning beds of the tributaries which enter the Fraser below Yale are shown to have been utelized by a far greater number of sockeye than in any recent year not excepting that of the last big year—1913.

THE total number of sockeye eggs collected in the district below Yale exceeded sixty-eight millions as against twenty-three millions four years ago. This is a most satisfactory and surprising showing when it is remembered that the total catch this year was the smallest recorded. This favorable showing is attributed by Mr. Babcock to the fact that the fish entered the river after the regular fishing for sockeye was over and the nets removed from the waters.

The watershed of the Naas and Skeena Rivers and Rivers and Smith Inlets are shown to have been well seeded. Attention is called to the fact that the runs to these nothern waters shown a satisfactory condition, being the only salmon waters of the Pacific where the run continues normal.''

The department is certainly to be commended upon the issuance of so valuable and important a report.

SMOKED DOGFISH NOW ON MARKET.

The grayfish (dogfish), which the Bureau of Fisheries is boosting as an economical food, is to become one of the most versatile of prepared fish. At least it is to be prepared in a number of ways, if the announcement from Gloucester can be relied upon. As a canned fish it is a success; most unbiased judges agree that this is so. But now it comes skinned and smoked, and it would take a really careful fish man to tell the difference between it and a skinned smoked eel.

The samples of smoked grayfish which arrived from Gloucester last week were small specimens measuring perhaps fifteen inches in length, without head or tail. The man who had them said they were ''pups'', and no one who had an opportunity to look or smell questioned the designation.

Smoked grayfish is deceptive. To those who know how to prepare smoked fish it is ''good eating.'' To others it is not. At any rate it is a smoked fish and like all other smoked fishes—a bit better than some which have been accepted as fine food. The young fish used for smoking are narrow and long, like the eel, but, of course, taste decidedly different.

It would be difficult to foretell what the reception of this new form of grayfish is to be, but foreigners who were permitted to look and taste said it was good.

Smoked grayfish will sell at 12 cents per pound.—Gloucester Times.

King Herring

By COLIN McKAY.

OFTEN referred to by old writers as the King of Fishes, herrings have long been the friend of the masses. And that not only on the principle of the old fable: "Thou seest, my child, that the wolf has eaten the lamb because it has not been wise." "Yes, mother, I understand. If the lamb had been wise, it is we who would have eaten it." The historian Motley in his history of the Netherlands observed that the unfailing supply of herrings, abundant and cheap, enabled the Dutch to achieve their independence from the tyrannous power of Spain when the might of that Kingdom overshadowed Europe and half of the new world; and it is interesting to note that in the greatest crisis in human history when an autocratic power far greater and quite as unscrupulous as that of Philip of Spain menaced the independence and liberties of European peoples, the herrings fisheries, in spite of diminished fleets and restricted fishing grounds, were fairly successful. And so far as Great Britain is concerned, men who in peace times followed the pursuit of the King of Fishes rallied to the defence of European liberties in a manner perhaps unparalled among any other class of people in the Kingdom or Empire.

THE Lieutenant Commander of a patrol boat said to me with careless pride. "In the little spot on the map I come from in the Shetland Islands—there has never been a recruiting meeting; never a recruiting poster pasted up anywhere. Absolutely useless. Every able-bodied man was with the colours, mostly in the navy, of course, as soon as they could be taken."

IN France too a large number of men who formerly followed the herring fishery are with the colors. Tragic indeed is the aspect of French fishing ports where great fleets of sailing craft have been rotting at their moorings these two years past; crowded together under a forest of spars, lifting here and there a carven truck the gilding of which has bravely defied the weather, they lie in inglorious idleness. Stricken with the leprosy of dirt and neglect, they look like the victims of some dreadful plague, waiting in sullen despair release from the sinister burden of life. Mostly these abandoned fleets are composed of craft of an old fashioned sort, heavy and cumbersome of build, and of an outlandish rig; and in no British port will you see such a melancholy spectacle as they present. For Britain must carry on her fishing industry in some fashion under the menace of starvation, while for France men to crew her fishing fleets are not so important as men for her fighting forces, since her people being mostly located on the land, could probably manage to live if they drew no sustenance at all from the sea.

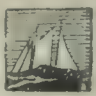
A RED herring arises to the surface here; a temptation to contrast the social systems and underlying economic conditions of England and France, and draw certain conclusions therefrom. But I will only say in passing that England is so handicapped by the inertia of the caste system and feudal privilege that any great increase in her production of food from the land is unlikely, and that if the war is prolonged her food problem—now beginning to become important—can only be solved with the help of the overseas dominions. And as, if the war is to be prolonged the submarine will be a prime factor in that prolongation, England will be less and less able to supply herself with fish from home waters, the matter is of first importance to the Canadian fishing industry.

TO return to our muttons—our herrings. "Les harengs", a dit Michelet, "sont comme un élément fatal et aveugle, mille destruction ne les décourages: hommes, poissons, oiseaux, tout fond sur eux; ils vont, its voguent toujours. Il ne faut pas s'en étonner; dans ce monde qui ne connait pas l'union fixe, le plaisir est une aventure, l'amour une navigation; sur toute la route ils répandent des flots de fécondité." They abound — these herrings in their seasons — in the North Sea, and on the west coast of Britain; to say nothing of Newfoundland, Nova Scotia and Grand Manan. Before the war Great Britain had roughly 2,000 steam vessels and 2,500 sailing vessels employed in the herring fisheries. France equipped about 200 steam vessels and 10,000 sailing vessels for this fishery, the latter being mostly small craft.

AS a rule herrings made their first appearance in great schools off the Shetlands, or in the latitude of those Islands in the last week of May or the first week of June; dependent, it is said, upon the weather or its effect upon the Gulf Stream which is alleged to carry animalcules particularly attractive to herrings. About that information does not appear to be precise and definite. The Gulf Stream is sometimes accused of producing results in which at best it plays a very inconspicuous part. There is, for instance, the Maury myth that the Gulf Stream has a profound influence upon the climate of England; a myth still believed in by many, though the wild climate there is due to the prevailing winds, and their relation to one of the great anticyclones.

ANYHOW herring appear in the latitude of the Shetlands about the first of June—appear in vast schools whose movement agitate the surface of the sea like a field of grain swept by strong winds. Immense flocks of sea fowl accompany the schools, squabbling and scolding, seizing myriads of unwary fish. Porpoises, bonitoes, sharks and other predatory fish ravage the serried columns. But upon the enormous schools all this ferocious destruction makes no impression—does not even modify the direction of their movement.

BRITISH vessels, sail and steam, are soon busy. Generally they operate near land and return to port every morning to land their catches. About the middle of June or later the French and other European herring fishermen arrive in the latitude of the Shetlands. Generally they start their operations about midway between Norway and the Shetlands. At the beginning of the season French vessels, lucky enough to take 500 or 600 barrels in a short time return to France where they then get good prices. Mostly, however, they follow the herring schools till they have a full fare, each vessel salting its catch. The French, use a net with a larger mesh than the British do, and the catch larger variety. The French sink their nets to varying depths, according to the skipper's judgment, and generally deep enough to permit a steamer to pass over them. The British keep their finer nets near the surface. Usually the nets are put out at four in the afternoon, and at three in the morning they begin to take them in—an operation that usually lasts five hours.



GRADUALLY the herrings move southward, till about the 25 of August they reach the neighborhood of the Dogger Bank. Thereabouts they remain for three or four weeks; then, generally following a blow, they flee 80 or 100 miles to the N. N. E.—sometimes going as far as the Great Fisher Bank. Later they move southward again, and by the end of October enter the Straits of Dover. From there they slowly follow the French coast down to Le Héve Bank, off Havre, whence at the end of December or thereabouts they disappear altogether.

The Tadousac Fish Hatchery

By E. SHANLY.

The Dominion Government maintains throughout Canada some fifty fish hatcheries. Thirty-five years ago it opened one at Tadousac to supply the needs of the eastern section of Quebec, that is to say the hatchery proper is situated at Tadousac, while for convenience of transport the fry are packed in special cans and taken to smaller stations to mature near the streams into which they are to be released.

This hatchery is devoted to the cultivation of salmon —land locked and sea—and trout, both of which bear the family name SALMO. Their affinity is especially marked in the alevin. The trout is in marking, a miniature of the adult, while that of the salmon closely resembles it and does not acquire the silvery appearance of the adult salmon until its second birthday. Indeed during all its fresh water existence this latter fish remains diminutive, counting its weight in ounces until it goes down to the sea when it exchanges them for an equal number of pounds in from five months to two years. The average adult uncaught is twenty pounds in weight. The salmon may come back in its first year but it is usually in their seventh year that they return to fresh water, preparatory to depositing the milt and spawn. Towards the end of October and the beginning of November the females take on a dusky tint. At the same time the males become streaked and spotted with red and orange and develop a curved cartilagenous process on the lower jaw for the purpose of attacking one another. In July the pisciculturist forestalls the "run" by netting fullgrown fishes and keeping them in tanks until the end of this period when the eggs and milt may be pressed out and mixed. The fertilised eggs—of a pink or orange colour—are kept in running water until April when they hatch out. The newly hatched fish is about one inch long and is provided with a yolk sack, the remains of the yolk attached to its under surface, from which it derives the nutriment necessary for its growth until it is capable of feeding itself. This is the alevin condition. Trout mature quickly but salmon require two years to come to maturity and seven or eight to be full grown and ready for reproduction.

On going ashore at Tadousac one's eye travels first towards an inlet weired off from the little harbour. into this extends a picturesque rustic pier from which at low tide may be seen the five hundred lazy leaping salmon, the summer colony of the Government required to stock the "nursery tanks." One salmon will lay from 15,000 to 18,000 eggs, the number varying with its weight. A trout lays from 800 to 1,000 eggs. Overlooking the basin is a low white building housing the hatcheries. Inside one finds a larger tank extending the length of the room to hold occasional large fish and about twenty-five or thirty rows of small nursery tanks about one foot in depth and some twenty feet long, through which there is a constant flow of water from an old millpond nearby. Fresh water is used as sea water is unsuitable for 95 p.c. of the eggs. These tanks accomodate four million eggs of salmon and five million trout. They are placed in perforated tin trays each holding 6,000 eggs laid in the tanks often in two tiers. The eggs have to be cleaned continually and the water cleared of scum to prevent their suffocation. The white sterile ones must also be eliminated before they decay and infect the good eggs. The rapidity of hatching is regulated by the temperature of the passing water, six months is usually allowed for this purpose. At the end of April the alevins are free to swim about the tanks —the outlet being screened to prevent their escape. The artificial feeding of the young fry presents many difficulties. At Tadousac they are given dried eggs powdered for food, as these contain a great deal of nourishment. Six weeks after hatching the fish are ready for distribution in the rivers. Their small cousins the smelts are put into the waters where there are young fish to ensure them sufficient nourishment.

The pickling of salmon was formerly a prolific industry in the old country—one never hears of it now. Originally abundant in the rivers of America, the salmon is said to be comparitively scarce in all parts of this country save Labrador. This must be ascribed to a wholesale slaughter in the past of spawning fish and to the inevitable destruction of eggs and fry from drought, disease and envagination. In what measure this Government industry is succeeding in counteracting these evils one may judge from the following statements. First of all the hatchery reared 100,000 fish this year as against 70,000 last year. Again at a club nearby on the Ste. Marguerite River where formerly ten to twelve salmon were caught in a season, at present the normal catch is 150, as many as 23 salmon were said to have been caught in a single day.

These facts are given on the authority of Mons. Catellier who on this occasion acted as conductor and in his charming French way did everything in his power to give us the required information for this article. He slightly disparaged the trout, they had only been experimenting with the trout two years.

But above his modest shrug there was the satisfied smile of a man who has made two trout bite where only one bit before. The landlocked salmon were an even more recent venture, there were as yet just 30,000 eggs in the nursery tanks. One was given to understand that a future visit would reveal more experiments and greater results. All fish distributed by the Government hatcheries are marked with a silver tag giving its date and place of birth. If any fisherman should pull in one of these fish, will he please send the tag home with his blessing to the experiment station and receive a reward of one dollar for contributing to the results.

Some Words to Employers in the Fishing Industry

What "You" Can Do for the Returned Soldiers.

By A. R. DOBLE,

(President of the Khaki League, Montreal).

The Military Hospitals Commission and many official and private organizations are spending much time and energy in behalf of the returned soldiers, but every Canadian citizen should and can take an interest in the national heroes.

Many have neither time nor opportunity to join an organization for that purpose, but much is to be done by individual and independent effort, intelligently directed. Here are a few suggestions which may help you to do your part.

Give Them a Welcome.

When you see in the papers that any of the boys are returning to your neighbourhood, get together with a few of your neighbours and give them a hearty reception.

Don't treat them to alcoholic refreshments. Many of the men are not in normal state, owing to what they have been through. While, under ordinary circumstances, a drink might do them no harm, under present conditions it might be a very bad thing for them. You will not wish to do an injury to those who have endured so much for you.

Employment.

Find out what jobs are vacant in your community. Make it a matter of pride for employers to give the first chance to a returned soldier.

Encourage the men to get back to work. Loafing is bad for them, as it is for any of us.

If you are an employer, give the returned soldiers a fair show. It may take a little time for them to get their bearings. Have patience with them, and encourage them—they have suffered so much for you.

Advice.

Be in a position to advise the returned soldier where to go in case of need. If you see one in any difficulty try and help him out, or go with him where he can get proper attention. Help the men who have helped you.

Some of the places where information and assistance may be obtained follow:

The Military Hospitals Commission of the Dominion Government has its chief office at 22 Victoria Street, Ottawa. Branch offices — Room 301 Drummond Bldg., 511 St. Catherine Street West, Montreal, Que.; and 1 Queen's Park, College Street, Toronto, Ont.

Here is a list of the Provincial Organizations:

Nova Scotia,—Returned Soldiers' Employment Committee, Metropole Building, Halifax.

New Brunswick,—Returned Soldiers' Aid Committee, 49 Canterbury Street, St. John.

Prince Edward Island,—Returned Soldiers' Commission, Box 306, Charlottetown.

Ontario,—Soldiers' Aid Commission, Parliament Bldg., Toronto.

Quebec,—Soldiers' Employment Bureau, 64-65 Dandurand Building, 294 St. Catherine St. East, Montreal.

Manitoba,—Provincial Returned Soldiers' Commission, 185 Lombard Street, Winnipeg.

Saskatchewan,—Saskatchewan Division of the Military Hospitals Commission, Leader Building, Regina.

Alberta,—Central Provincial Committee of the Military Hospitals Commission, Government Buildings, Edmonton.

British Columbia,—Returned Soldiers' Aid Commission, Parliament Buildings, Victoria.

Some of the Provincial Organizations have local committees in many towns, and more of these local committees are being formed.

In conclusion, **TAKE A PERSONAL INTEREST** in the returned soldiers. They don't need treating, nor coddling nor charity, but they need human sympathy and kindness, as well as justice.

Canada owes her soldiers a debt which money can never pay. Will you **DO YOUR BIT** towards paying it as above suggested?

Fixing Fish Prices

Action by German Government.

The authorities in Germany have recently been taking in hand the question of the fish supply. A decision as to the prices of smoked and pickled fish has been come to. Instead of fixing general prices , the War Food Bureau has made a fixed allowance for the costs of manufacture and trading expenses. The local price-testing offices will add to this the cost of freights and raw material, and thus arrive at the sale price, which will, of course, differ according to local conditions in various localities.

The "Hamburger Fremdenblatt" of October 23rd states that a meeting has been held in Kiel attended by Baltic fishermen, fishing commissioners, and members of the Fishereiinteressentenverein of Kiel-Ellerbeck. Their object is to bring about a cheapening of fish as food. At the meeting the fishermen declared themselves willing to sell the catches on this condition, that smoked fish shall be sold to the people at a price reduced by the amount which the fishermen are willing to forgo in selling their catches. If all the people through whose hands the fish pass before reaching the consumers, fisheries, commissioners, curers, picklers, wholesalers, and retailers, show a readiness to compromise, this condition can be fulfilled.—Fishing News.

Advocating Fish as Food in England

Substitute for Meat in War Time.

Canadians will find much to interest them in the following article and the facts stated apply just as much to Canada as they do to the Old Country.

The Committee on Food Prices has suggested that people should eat less meat and should establish a meatless day once a week. In this connection Dr. C. W. Saleeby has written to the Daily Chronicle approving the proposal, and urging the advantage of fish as a substitute for beef. In England, for centuries, he says, meat has been a ludicrously over-rated form of diet. The Scotsman knows better—or used to. Never cheap, but always tasty, thus precisely the opposite of porridge, meat is known to science as chiefly a source of the necessary proteins of our diet. In recent years, American and other observers have shown that the accepted estimates of daily protein need, which we owed to German physiologists, were greatly excessive, and other students trace degeneracy of tissue, reduced energy, and shortened life, to the toxic products of a too ample protein diet, such as we nearly all consume.

As an island people, whose sailors are unsurpassable, we should regard the waters round our home as really an extension of our pastures. Just as cattle feed upon green leaves on land, so fish feed upon the green vegetables, called planton, of the sea, sunlight being turned into available food material for us in either case. Our national attitude towards fish as a staple diet is stupid and injurious. In some degree it depends upon our bad cooking again—la sauce fait manger le poisson—but it also depends upon the habituation of the palate to the stronger flavour of meat, and also upon the incredibly vulgar idea that whatever is cheap must be inferior. Compare the relative cost and value of, for instance, water and wine, air and perfumes, in correction of this idea.

Scarborough Landlady's Surprise.

OUR fishermen, even during this war, have continued to supply us with a still cheap abundance of a vast variety of fresh and delicious fish, the flesh of which, like the flesh of land animals, consists of protein, admirably suitable for our needs. We do not know how fortunate we are. In Bavaria, when the dominant religion orders a meatless day once a week, the devout may have to content themselves with dried or salted fish, that may be of poor quality. The fresh fish from the Bodensee, offered me in a Munich hotel three years ago, was there regarded as a great luxury, as indeed, it was. But, recently, asking for fresh herrings at Scarborough, even for Sunday's dinner, I found my landlady incredulous. She did not believe I could have remembered that the next day was Sunday. Not that fresh herring, especially as she cooked them, are not delicious, for they can scarcely be surpassed for flavour by anything, but merely they were cheap; I could not be doing justice to myself by eating them for dinner on a Sunday.

We need to be rid of such ideas, and to realise our good fortune. In a recent article published here it was shown that 85 per cent. of the herrings landed in Great Britain are exported abroad. Yet careful research shows that in virtue of fat as well as protein, herrings cannot be beaten, and that "the despised bloater offers the largest amount of nutriment for a given sum of any animal food."

Disdaining Cheap Food.

WE have too long been spoilt by our prosperity. Instead of thinking or learning, we judge by our neighbours' practice or by the silly criterion of cost. That is why margarine is still so much slighted. Since the war I have had no butter, but margarine at 6d—latterly 7d—a pound. This admirable, safe, pleasant foodstuff, the use of which frees milk for children, is despised solely because it is cheap. So now with fish, both as regards the choice between it and meat, and as regards the choice of the fish itself. In this, as in all other cases, price is no criterion of food value, because flavour is what we pay for. If, as in the case of the herring, flavour is to be had cheap, we despise it. Haddock and sole are just equal in nutritive value, but we pay four or five times as much for sole on account of its flavour. Other excellent fish never reach us at all because they are so cheap. At Scarborough lately I often had a large flat fish, very cheap, called "woof," of which I had never heard before, and the name of which I cannot find in the dictionary, but which was tender and delicious. Not only does chemical analysis demonstrate the value of fish, but physiological experiment shows that this food is as well absorbed as meat. This is a crucial point, for many foods rich in foodstuffs are poorly absorbed, and fail us accordingly. Dr. Hutchison, our chief authority, concludes that "fish ranks amongst the most fully absorbed of foods."

On the meatless day which we should have imposed upon ourselves long ago, let us, therefore, try the islanders' natural, cheap, nourishing food of fish. This is now being tried in the army itself, at Canadian instigation, and need be no infliction upon ourselves if we take a little pains with cooking, and meanwhile remember the words of Carlyle:

"Of a truth, if man were not a poor, hungry dastard, and even much of a blockhead withal, he would cease criticising his victuals to such extent and criticise himself rather what he does with his victuals."

DOGFISH SKIN FOR SHOES.

Says the Portland Express and Advertiser editorially:

The prediction that we must pay $20 a pair for our shoes before long fills us with consternation and the most natural thought is of a substitute for leather. Fishermen claim that the skin of the dogfish, properly prepared, is tough enough to be employed to advantage in the manufacture of women's shoes anyway. The dogfish could be made of great value if it were utilized intelligently.

French fishermen from St. Pierre, Miquelon, will engage in the Newfoundland herring fishery this year. The advent of the French in this fishery is something new.

The Government of Italy requires codfish for its army in the field and is looking to Newfoundland for supply.

National Fish Day in Prince Rupert

AT the "Fish Day" luncheon at the Central Hotel Prince Rupert on Oct. 31st, under the auspices of the Board of Trade, Mr. George W. Nickerson presided over a gathering of about eighty. After a splendidly varied lunch of fish dishes had been disposed of, Mr. Nickerson called upon Mr. T. H. Johnson, manager of the Canadian Fish and Cold Storage Company, to address the company.

At the outset, Mr. Johnston pointed out that the National Fish Day had been declared by the Canadian Fisheries Association, of which there are several members in the city, with the object of making Tuesday of each week a fish day, in addition to Friday.

The speaker then quoted from several southern papers to show that Prince Rupert has come to be considered the natural centre of the Pacific coast fishing industry. He emphasized the fact that now that the title had been won, it is up to us to see that it is upheld. "There is only one word necessary to tell how this can be done," said Mr. Johnson, "and that is the word 'Service.' ". By service he meant the providing of every facility for the handling of fish by the railroads; the construction of suitable docks, cold storage plants and the careful supplying of bait and outfit generally. "It is only by giving the best possible service that we can hold the fishing industry," said the speaker.

MR. JOHNSON went on to remark that it had been stated that Prince Rupert had stolen the fishing business. He contended that the industry had centered here because Prince Rupert had provided the best facilities for it, and also by reason of the geographical position of the city He characterized the present volume of fishing business as a compliment to the foresight of the capitalists who had placed their money in the construction of the great transcontinental railway in the north. Their dreams of future development had come true. He held that the mere fact that the American fishermen had come here in such members proved that they found better facilities here for the handling of their fish than elsewhere.

"How can we hold the trade?' 'asked the speaker, to which he replied, only by giving the service". Though at the moment he was dealing solely with the fishing industry, this applied to all industries. In the first place the fisherman must see that he brings in a good quality of fish, as quality always demands price. "Today, we have an opportunity to build up a trade, while fish is scarce in other places, which will hold after the war is over and other markets have been opened up," said the speaker, "and Prince Rupert must make a name for fish of quality superior to that of other quarters. Let Prince Rupert stand for 'fish', as Winnipeg now stands for wheat."

The fish must be properly taken care of in the boats; carefully iced and dressed so that they are handed over to the buyers in perfect condition. If the fisherman fails in his part, the error can never be rectified, as, once a fish is spoiled, it is spoiled for all time. There is no possible chance of its being used for curing or in any other way.

He described the business as a chain, with the fishermen at one end and the housewife at the other. They must be linked up so that the consumer in Montreal may buy Prince Rupert fish in perfect condition and at a reasonable price. All parties must be satisfied with their share of the transaction.

HE thought that "Service" should be watchword of Prince Rupert for the year 1917. This city is dependent on the fact that it is here that rail and ocean meet,and it is at this point we must have the facilities for handling our industry. He went on to say that progress in the fishing industry is dependent upon the railroad companies, as fish must be carried rapidly that it may reach the eastern markets in prime condition. He believed that the railway company had as its motto "Safety First". He thought it should be service first, as the one included the other. In dealing with the transportation problem, he pointed out that it costs $2 per 100 pounds to land fish in Montreal, while it costs only 65 cents to carry a 100 pounds of copper the same distance. There was not this difference in the gross rates, but fish included boxes and ice and this was the figure on the net weight of the fish. He thought that the food of the people should be carried at a lower rate than such a commodity as copper which could not be termed a necessity of life. When the time comes when the fishermen would be handling the cheaper grades of fish, it would not pay them to ship east as the freight would amount to more than the value of the fish. He thought that the railway company had its work to do in the building up of the fishing industry.

MR. JOHNSON said that the government could do much towards building up the industry by the introduction to these waters of fish not found here at present. This applied particularly to the haddock, which is plentiful in the Atlantic but not found here. He described the haddock as one of the finest of fish from every standpoint, and one which lent itself to a much greater variety of treatment in the way of packing and preparing than any other fish. He thought that spawn brought into the Pacific would develop splendidly, just as the shad had done in the south, when introduced by the United States government. Today, carloads of shad are being shipped across the continent from the Pacific. In conclusion, he urged the tradesmen and the members of the Trades and Labor Council to adopt "Service" as their watchword for next year. He felt certain that the result would be beneficial to the whole community and to the Dominion of Canada.

Mayor McCaffery, seconded by Mr. G. A. Woodland, moved a hearty vote of thanks to Mr. Johnson for his able address; to the hotel management for the sumptuous luncheon: to the Board of Trade for planning the function and to the many gentlemen who had attended.

IN putting the vote, Mr. G. W. Nickerson pointed out how much unity of purpose had accomplished in bringing the fishing industry to Prince Rupert. Every man, woman and child had benefitted from the fact that this city is handling fifty per cent. of the coast fishing business. He called for the same unity in dealing with the northern salmon industry, which is centred in Vancouver and Victoria and none of the benefits of it experienced by Prince Rupert, which is the centre of a large part of it. He urged the people of this city to show their confidence and interest in the fishing industry by investing their capital in it. He had had four years experience of it and it was the only thing which had given a return. A most enjoyable and educative function closed with the singing of the National Anthem.

SWAP LOBSTERS FOR SALMON

Captain E. E. Hahn of the United States fish hatcheries at Boothbay, Maine, is on his way across the continent with a carload of 6,000 lobsters, which will be liberated on the Pacific coast at Anacortes, 90 miles north of Seattle.

This is Captain Hahn's fifth trip across the continent with lobsters, seven shipments in all having been made. The government pays 38 cents a pound for the selected lobsters.

The shipment weighs about 10,000 pounds. The car on the return trip is expected to bring a consignment of humpbacked salmon to be used for propagating purposes in the rivers at the eastern part of the state.—Gloucester Times.

HALIBUT ARRIVALS AT PACIFIC COAST PORTS. OCTOBER 1ST TO OCTOBER 31ST, 1916.

Oct. 1.—Olga, U.S., 10,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 1.—Rosario, U.S., 8,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 1.—Petrel, U.S., 7,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 1.—Gilford, 8,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 3.—Morengen, U.S., 18,000, Booth Fisheries Company.

Oct. 3.—Chief Skugaid, 16,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 3.—Grayling U.S., 9,000, Booth Fisheries Company

Oct. 3.—Zorra, 10,000, Atlin Fisheries Limited.

Oct. 5.—Corona, U.S., 22,000, Atlin Fisheries Limited.

Oct. 5.—Venus, U.S., 18,000, Booth Fisheries Company.

Oct. 5.—Stranger, U.S., 10,000, Booth Fisheries Company.

Oct. 5.—Chief Zibassa, 16,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 6.—Glacier, U.S., 11,000, Booth Fisheries Company.

Oct. 6.—Todd, U.S., 12,000, Booth Fisheries Company.

Oct. 6.—Seymour, U.S., 40,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 6.—Viking, U.S., 5,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 6.—Republic, U.S., 48,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 7.—Chief Carruthers, 40,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 7.—Tom & Al, U.S., 70,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 7.—Iovera, U.S., 13,000, Pacific Fisheries Company

Oct. 7.—Advance, U.S., 15,000, Pacific Fisheries Company.

Oct. 7.—Liberty, U.S., 50,000, Atlin Fisheries Limited.

Oct. 7.—Constance, U.S., 55,000, Booth Fisheries Company.

Oct. 7.—Pioneer, U.S., 40,000, National & Independent Fisheries Co.

Oct. 8.—Constitution, U.S., 45,000, Booth Fisheries Company.

Oct. 8.—Helgeland, U.S., 70,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 8.—Sitka, U.S., 60,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 8.—Rose Spit, 5,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 8.—Jo Baker, 10,000, Atlin Fisheries Limited.

Oct. 8.—Lillian M., 5,000, Atlin Fisheries Limited.

Oct. 8.—Lincoln, U.S., 7,000, Atlin Fisheries Limited.

Oct. 8.—Exhibit, U.S., 9,000, Atlin Fisheries Limited.

Oct. 10.—Arctic, U.S., 20,000, Booth Fisheries Company.

Oct. 10.—Equator, 5,000, Atlin Fisheries Limited.

Oct. 12.—Shamrock, U.S., 30,000, Atlin Fisheries Ltd.

Oct. 12.—Trio, U.S., 18,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 12.—Crescent, U.S., 9,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 12.—Selma, U.S., 8,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 12.—Jennie, U.S., 8,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 12.—Agnes B., 10,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 13.—Alameda, U.S., 9,000, Atlin Fisheries Limited.

Oct. 14.—Westjford, U.S., 6,000, Atlin Fisheries Ltd.

Oct. 14.—Star, U.S., 14,000, Atlin Fisheries Limited.

Oct. 14.—Doreen, 5,000, Atlin Fisheries Limited.

Oct. 14.—Maud, 5,000, Atlin Fisheries Limited.

Oct. 15.—G. Techkla, U.S., 10,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 15.—Polaris, U. S., 50,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 15.—Bryan, U.S., 10,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 15.—Alaska, U.S., 60,000, Atlin Fisheries Limited.

Oct. 15.—Amunsden, U.S., 8,000, Booth Fisheries Company.

Oct. 15.—Senator, U.S., 20,000, Booth Fisheries Company.

Oct. 17.—Elfin, U.S., 5,000, The Canadina Fish & Cold Storage Co., Ltd.

Oct 17.—Petrel, U.S., 8,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 17.—Vesta, U.S., 18,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 17.—Tree, U.S., 8,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 17.—Eidsvold, U.S., 16,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 18.—Geo. E. Foster, 50,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 19.—Rolfe, U.S., 9,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 19.—Advance, U.S., 9,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct 20.—Seattle, U.S., 60,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 20.—Grier Starrett, 10,000, The Canadian Fish & Cold Storage Co., Ltd.

Oct. 23.—Dick, U.S., 12,000, Atlin Fisheries Limited.
Oct. 23.—Director, U.S., 12,000, Atlin Fisheries Ltd.
Oct. 23.—Viking, U.S., 6,000 The Canadian Fish & Cold Storage Co., Ltd.
Ot. 23.—Gilford, 5,000, Atlin Fisheries Limited.
Oct. 24.—Chief Zibassa, 25,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 24.—Republic, 45,000, Atlin Fisheries Limited.
Oct. 25.—Lincoln, U.S., 7,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 25.—Andrew Kelly, 70,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 25—North Cape, U.S., 7,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 25.—Progress, U.S., 70,000, Booth Fisheries Company.
Oct. 25.—Jo Baker, 6,000, Booth Fisheries Company.
Oct. 26.—Venus, U.S., 19,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 27.—James Carruthers, 50,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 28.—Liberty, 45,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 30.—Tom & Al, U.S., 40,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 30.—Glacier, U.S., 10,000, The Canadian Fish & Cold Storage Co., Ltd.
Oct. 31.—Constance, U.S., 50,000, Booth Fisheries Company.

Note.—All vessels not specified "U.S." are of Canadian Registry.

At Ketchikan, Alaska:

Oct. 2.—Knickerbocker, 40,000, New England Fish Company.
Oct. 3.—New England, 20,000, New England Fish Company.
Oct. 6.—Prospector, 60,000, New England Fish Company.
Oct. 27.—Prospector, 50,000, New England Fish Company.

At Vancouver, B. C.

Oct. 2.—Celestial Empire, 50,000, The Canadian Fishing Co., Ltd.
Oct. 2.—Kingsway, 65,000, The Canadian Fishing Co., Limited.
Oct. 2.—Pescawha, 40,000, The Canadian Fishing Co., Limited.
Oct. 16.—Borealis, 20,000, The Canadian Fishing Co., Limited.
Oct. 17.—Manhattan, 115,000, New England Fish Company.
Oct. 21.—Celestial Empire, 40,000, The Canadian Fishing Co., Ltd.
Oct. 21.—Flamingo, 35,000, The Canadian Fishing Co., Limited.
Oct. 23.—Pescawha, 40,000, The Canadian Fishing Co., Limited.
Oct. 23.—Kingsway, 45,000, The Canadian Fishing Co., Limited.
Oct. 28.—New England, 50,000, New England Fish Company.
Oct. 31.—Knickerbocker, 40,000, New England Fish Company.

At Stevenston, B. C.

Oct. 2.—Roman, 30,000, The Columbia Cold Storage Company.

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